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Ceramic Exchange and the Indian Ocean Economy (AD 400–1275)

Volume II: Indian Ocean Pottery Classification

Seth M.N. Priestman

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Introduction

Volume II of *Ceramic Exchange and the Indian Ocean Economy (AD 400–1275)* sets out a body of information related to the classification and identification of ceramics commonly encountered archaeologically within the western Indian Ocean. This information has been collated from various sources in an attempt to provide an overarching Indian Ocean Pottery Classification (IOPC), that can potentially be applied to assemblages from sites across the entire region. This exercise is only made possible by the fact that certain categories of ceramics were widely exchanged and distributed throughout the western Indian Ocean area. These categories allow assemblages from far removed locations such as East Africa, western India, or the Persian Gulf, to be directly compared and cross-dated. At the same time, the available knowledge of ceramic industries with more localised distributions is highly uneven. What is set out here is only a skeletal framework for the definition of what is, in reality, a vast array of ceramics from different production sources, covering an extended time period from the *c*. 4th–20th centuries. Much more research is required to flesh out this body of information, as well as to further refine the definition of existing categories, not least through the wider application of petrographic research, chemical composition analysis and the identification of production sources. What the IOPC aims to provide is a starting point for the structured classification of a wide and diverse body of material. It represents a statement of the existing state of knowledge, in what is a rapidly growing and shifting field, that needs to be actively enriched through the incorporation of further regional datasets, particularly those derived from other parts of the Indian Ocean than the Middle East. This is admittedly a Middle East-centric presentation but one that also touches on elements of the vast array of products from other sources that entered the pool of Indian Ocean ceramic exchange.

The following catalogue provides a full list of ceramic classes defined within the IOPC. These categories have been used as the basis for the analysis undertaken within the study presented in Volume I and are referred to throughout that volume using a shortened acronym of the full class title in the form of class codes written in upper case letters. As has been outlined elsewhere (**Section 2.3**), the ceramic class categories have been determined by combining the results of several previous studies. The resulting class and fabric descriptions represent a compilation of information from previously published sources and planned forthcoming work. The sources include:

- Kush/al-Mataf: The study of the phased and quantified assemblages from Kush (4th/5th–13th century) and al-Mataf (14th–16th/17th century) in Ras al Khaimah in the United Arab Emirates (Kennet 2004). This represents the starting point for all subsequent work. In most cases the original classes that were defined have been revisited; with new descriptions provided incorporating the observations made by this author on the basis of other assemblages and collections (see below). In some cases, where there is nothing further to add to the published description, or in the case of classes that only occur at Kush/al-Mataf that I have not encountered elsewhere, the descriptions have simply been incorporated from the original source[1]. In such cases, the text from Kennet (2004) is clearly differentiated by being placed in quotation marks, reproduced in italics and followed by the publication and original page number reference.

- Williamson Collection: Study of the ceramic finds from the Williamson Collection, which includes over 17,000 sherds collected during surface survey of more than 1000 Sasanian and Islamic period sites in southern Iran. The survey was undertaken by Andrew Williamson between 1968 and 1971 and the finds were deposited with the Ashmolean Museum (Williamson, 1970a). These were subsequently processed and recorded at the University of

[1] I am very grateful to Derek Kennet for agreeing to my use of the original text in this way. In the future I hope that this catalogue can be further added to and expanded via multi-author contributions perhaps following an open access format.

Durham between 2001 and 2004 (Priestman and Kennet, 2002; Priestman, 2003; 2005a; 2006; Priestman and Kennet, forthcoming).

- Siraf: The largest component of foreign division of finds from the excavation of the *c*. 7th–15th century occupation of the medieval port of Siraf in southern Iran held by the British Museum (Whitehouse, 2009; Priestman, forthcoming). This includes over 8000 mostly diagnostic sherds which were classified and recorded as part of the British Museum Siraf Project between 2007 and 2009.

- Other: Smaller additional studies undertaken on finds from: Sir Aurel Stein's survey of southern Iran held in the British Museum and the Peabody Museum in Harvard (Priestman, 2004); field surveys in the Bushehr area (Carter, Challis, Priestman and Tofighian, 2006) and the Minab Plain (Priestman, Kennet, Khosrowzadeh and Aali, 2005) and work on the excavated assemblages from Manda and Shanga in Kenya (Priestman, 2010a), Sohar in Oman, and Kush in the United Arab Emirates (Priestman, 2011a).

A full concordance between the ceramic classification schemes presented on the basis of previous studies is included above (**Volume I, Table 2.1**). This shows the way in which groups have been sub-divided, amalgamated or recombined based on revised information that has come to light at each stage of the investigation. The full description of the classes is provided below. Each class entry covers the main attributes that allow one to recognise and distinguish that category including a description of the fabric, vessel forms, and surface treatment. An assessment is also given of the degree of consistency within each class category. Class entries are arranged in thematic order and can be looked up either via a table showing their thematic groupings (**Table 1**) or via a list with the class codes organised in alphabetical order (**Table 2**). Class descriptions are supplemented by illustrations. This includes colour images of a representative selection of sherds for each class (**Plates 1-174**), together with schematic illustrations of recognised vessel types. Individual elements of vessel forms – rims, bases, etc – have been arranged into a formal type-series, which is presented below.

Some additional information needs to be provided in order to explain the class and type naming convention. There are alternative options in deciding how best to reflect past work on the subject of ceramic classification within the region and how best to facilitate the continued development of the subject. One argument is that any changes introduced, particularly where certain class or type names are already reasonably well established, are only likely to confuse the subject and reduce the potential for the comparison between existing datasets.

An alternative view is that in order to reflect the continued development and refinement of the existing information, class and type names will inevitably have to undergo a process of revision and that the name syntax itself can be used to actively structure this process. These alternative positions come into conflict when deciding whether and how to implement the coding system developed within the Kush/al-Mataf publication, which has now become the standard work on the subject (Kennet, 2004). A potential problem with the codes applied in the Kush/al-Mataf study is that they were developed on a piecemeal basis during the fieldwork project and they contain various structural inconsistencies. Frit codes for example have the prefix 'FRIT' at the beginning, followed by the various class sub-divisions: for example, FRIT.L (lustre frit), FRIT.T (turquoise frit), etc. Sgraffiato codes, on the other hand, have the class sub-divisions added to the front of the code, for example: HGRAF (hatched sgraffiato), GGRAF (green-glazed sgraffiato). This means that 1) there are syntactic inconsistencies between different groups of class codes and 2) the sgraffiato codes are inconveniently scattered in a list organised alphabetically.

The amendment to the sgraffiato codes involving a straightforward switch of the prefix to the suffix provides greater consistency and is hopefully easy for the reader to follow, however, there are deeper structural issues to address. Ceramic classes are mostly defined in a somewhat consistent manner on the basis of fabric, firing, production etc and within each class, there are further sub-divisions based on recognisable vessel types or forms. In some cases, however, the published Kush/al-Mataf classes have been defined on a typological basis, for example LISV (large incised storage vessels) or SMAG (small grey vessels). These are actually vessel types that could be more accurately placed within a conventional class grouping. In this case, as far as one can tell, LISV and SMAG appear to form part of the same general production tradition.

Although it may cause some confusion to the reader, the decision has been taken to apply a more formulaic and structured syntax to the class and type naming system. This will hopefully provide a logical framework both within the current context, and for the future development of ceramic studies within the region. The aim is to put in place a system that incorporates the capacity for some degree of future proofing and development. It is structured as follows:

Class codes

- First component – major class designation, for example: FRIT (frit), GRAF (sgraffiato).

- Second component – sub-class division following one of two options: 1) separation from the first component with a dash '-' indicating a major division of products probably from different production sources, for example: MGPAINT-1, MGPAINT-2, or 2) separation from the first component with a full stop '.' indicating a more superficial stylistic sub-division or one where it is not clear if the products come from the same or different sources, for example: OPAQ.W (white opaque-glazed), OPAQ.TS (turquoise splashed opaque-glazed), etc. Also note, where individual sub-classes have deliberately not been specified, a hash mark '#' has been used. For example, 'OPAQ#' is used to specify any opaque-glazed ware sub-class.

Type codes

The same problem applies to type codes, though in this case there are other organisational issues to contend with. A common approach to type naming is simply to number forms consecutively, i.e. Type 1, Type 2, Type 3, etc. The simplicity of this system does have certain attractions. At the same time, the referencability of such a system is problematic as type numbers are often assigned non-sequentially. In order to create a system that can potentially be refined and expanded, and which includes some degree of self-referential navigation, a coding system for types is required.

In the presentation below, type codes are first divided between the general categories of open and closed vessels (O = open, C = closed). Mostly these terms can be translated to mean 'bowls' or 'jars', but the neutrality of 'open' and 'closed' is preferred as these categories can include many other functional categories such as cooking pots, dishes, lamps etc, which all require a higher degree of interpretive assessment to establish their potential function and use. Beyond closed and open vessels, type codes are sub-divided according to the vessel part: R= rim, B = base, H = handle, L = lid, SP = spout. There is also a specific type code reserved for additional features. In most cases 'types' refer to distinct aspects of the vessel morphology. 'Features' (F = feature) include other aspects, such as a particular form of surface decoration, treatment of the body, etc. Finally, the decision has been taken not to develop a single accumulative series for each of these groups. Instead, there is a separate series for each class cluster. This system is intended both to prevent the growth of very long type number strings and to allow new types to be more easily incorporated within the organisational structure.

The notion of 'class clusters' also requires some explanation. One runs into an immediate problem if separate type numbers are simply applied to the forms within each class, especially where a range of sub-classes have been defined. What one often finds is a series of classes, or a 'class cluster' that share the same set of vessel forms. For example, the various opaque-glazed and clear splash-glazed wares collectively referred to as the 'Samarra horizon' share many common forms. The vessel types for this cluster are therefore most effectively treated collectively. It is likely that problems may be encountered in defining the boundaries between some class clusters, but mostly the divisions are reasonably clear. The framework offered here, is based on an assessment of morphological characteristics combined with a general evaluation of the relatedness of products in terms of their chronology and place of production.

As with the ceramic class information, an attempt has been made to collate the available evidence for typological characteristics from the western Indian Ocean area as a whole. The starting point for this study is the relatively detailed vessel typology developed on the basis of the division of finds from Siraf in the British Museum and the illustration of that material (Priestman, forthcoming)[2]. This typology has subsequently been added to, via the inclusion of illustrated vessel forms from the Williamson Collection (Priestman and Kennet, forthcoming) and from various published sources, allowing for its further expansion and refinement. The sources that have been utilised are:

- Ana (Northedge, Bamber and Roaf, 1988)
- Jazirat al-Hulaylah (Sasaki and Sasaki, 1996; 2000)
- Kush (Kennet, 2004)
- Manda (Chittick, 1984)
- al-Mataf (Hansman, 1985; Kennet, 2004)
- Siraf (Mason and Keall, 1991)
- Sohar (Kervran, 2004)
- Susa (Kervran, 1977)
- Unguja Ukuu (Horton, Priestman, Boivin and Crowther, forthcoming)

Two factors are critical in using these materials. Firstly, that enough information is provided in publication to correctly attribute individual vessel types to their associated class cluster, and secondly, that the illustrations are of sufficient quality to show fine details of the associated morphological characteristics. Not all publications meet these requirements. It became clear in collating the available typological information that certain minimum standards of quality and detail were required in order effectively utilise this type of information. An attempt has been made in the pages that follow to standardise the drawings from different sources by applying similar conventions where these can be readily modified and by utilising the same scale factor for related sets of vessel forms. The information on the source of each illustration is provided within the tables that accompany the pages of drawings. As with other aspects of the working Indian Ocean Pottery Classification, the presentation below represents a body of information that still needs to be added to and refined. The type naming system used here is also perhaps best considered simply as an indexing tool and for most groups further research will be required before a settled consensus emerges around the full definition of an established type series.

[2] I am very grateful to Mohaddeseh Mansouri Razi for undertaking most of this illustration and the Iran Heritage Foundation and the British Museum for supporting her work. I am also much indebted to Kanako Uchimura who undertook most of the work in collating the pages of illustrations presented here.

Ceramic Class List – Thematic Order

Group	Class Code	Class Name	Date	Origin	Page(s)
Red/Grey Wheel-Made Coarse Ware	CLINKY	Clinky-Fired Earthenware	4th–6thC	Southern Iran	19
	HARLIM	Hard Lime-Spalled Ware	6th–8thC	Southern Iran	19-21
	FINLIM	Fine Sandy Lime-Spalled Red Ware	6th–8thC	Southern Iran	21-22
	REBROS	Gritty Red/Brown-Slipped Ware	late 8th–10thC	Siraf, Southern Iran	22-24
	BEARTH	Black-Fired Earthenware	2ndC BC–4thC AD	Eastern Arabia	24
	CONG.G	Grey 'Conglomerate' Coarse Ware	3rd–5thC?	Southern Iran	24-25
Orange/Buff Wheel-Made Coarse Ware	CREAC	Cream Coated Red Ware	late 8th–10thC	Siraf, Southern Iran	25-26
	ORGPIN	Pink Organic-Tempered Ware	7th–10thC	Oman	27
	FLAKEY	Flakey Earthenware	7th–8thC	Ras al-Khaimah, UAE	27-28
	SPOT	Spotty Ware	10th–12thC	Ras al-Khaimah, UAE	28-29
	WAPO	Cream Pots with Incised Wavy Decoration	12th–13thC	Ras al-Khaimah, UAE	29
	REGTEC	Red-Grit Tempered Cream Coloured Ware	12th–15thC	Southern Iran	29-30
	LIME	Lime-Tempered Ware	14th–19thC	Bahrain?	31-32
	CHOC	Chocolate Chip Ware	mid-18th–20thC	Eastern Arabia	32
Fine/Sandy Buff Coarse Ware	EGG.PI	Plain or Incised Eggshell Ware	8th–10thC	Southern Iraq	33-34
	WHITE.PI	Plain or Incised White Ware	mid-8th–12thC	Southern Iraq	34-35
	WHITE.A	Applique Decorated White Ware	mid-8th–10thC	Southern Iraq	35-36
	BUFF.I	Incised Decorated Buff Ware	mid-8th–12thC	Southern Iraq	36-37
	BUFF.S	Stamp-Decorated Buff Ware	mid-8th–12thC	Southern Iraq	37-38
	BUFF.P	Plain Buff Ware	mid-8th–10thC	Southern Iraq	38-39
	SPORC	Soft Porous Cream Coloured Ware	late 8th–10thC	Southern Iraq	40-41
	TORP-S	Sandy Torpedo Jars	3rd–mid-8thC	Southern Iraq	41-42
	TORP-C	Cream Coloured Torpedo Jars	mid-8th–10thC	Southern Iraq	42-44
	TRC	Torpedo Jar Related Class	3rd–mid-8thC	Southern Iraq	44-45
	HONEY	Honeycomb Ware	7th–8thC	Southern Iraq	45-46
	STAMP	Stamp Marked Jars	7th–8thC	Southern Iraq	46-47
	RUST	Rusticated Jars	7th–8thC	Southern Iraq	47-48
	FIBIC	Fine Incised Buff Coloured Ware	9th–12thC	Southern Iran?	48-49
	HARC	Hard Fine Cream Coloured Ware	12th–15thC	Southern Iran	49-50

Group	Class Code	Class Name	Date	Origin	Page(s)
Fine Moulded Ware	EGG.M	Moulded Eggshell Ware	mid-8th–12thC	Southern Iraq	50-51
	EGG.R	Red Eggshell Ware	9th–11thC	Southern Iran?	51
	WHITE.M	Moulded White Ware	mid-8th–12thC	Southern Iraq	51-52
	MEW	Moulded Ewers	12th–13thC	Southeast Iran	52-53
	MEW.MO	Ewer Moulds	12th–13thC	Southeast Iran	54
Fine Slipped/Painted Ware	SLIP.R	Fine Red-Slipped Ware	2ndC BC–6thC AD	Southern Iran	54-55
	SLIP.B	Fine Black-Slipped Ware	3rd–8thC	Southern Iran	55-56
	SLIP.TB	Thick Brown-Slipped Ware	3rd–8thC	Southern Iran	56-57
	SLIP.PBR	Painted Brown-Slipped Ware	1st–2ndC?	Southern Iran	57-58
	FOPW.1	Fine Orange Painted Ware – Group 1	3rd–6thC	Southeast Iran	58-59
	FOPW.2	Fine Orange Painted Ware – Group 2	3rd–6thC	Southeast Iran	59-60
Handmade Coarse Ware	CHAM	Crude Handmade Ware	Not known	Southern Iran	61-62
	CHAM.N-ID	Non-Identified Crude Handmade Ware	Not known	Southern Iran	62
	BSTOP	Brittle Stone-Tempered Painted Ware	3rd–6thC?	Southeast Iran	63
	JULFAR	Julfar Ware	14th–20thC	Julfar, UAE	64-65
	JULFAR.PB	Purple and Black Julfar Ware	16th–17thC	Julfar, UAE	65-66
	JULFAR.RW	Red and White Julfar Ware	late 15th–17thC	Julfar, UAE	66-68
	HMPW-1	Handmade Painted Ware – Group 1	11th–13thC	Southern Iran	68-69
	HMPW-2	Handmade Painted Ware – Group 2	11th–13thC	Southern Iran	69-70
	HMPW-CC	Coarse Cream-Bodied Handmade Painted Ware	11th–13thC	Southern Iran	70-71
	HMPW-ORG	Organic-Tempered Handmade Painted Ware	11th–13thC	Southern Iran	71-72
	HMPW-RB	Red on Brown Handmade Painted Ware	11th–13thC	Southern Iran	72-73
	HMPW-SA	Fine Sandy Handmade Painted Ware	11th–13thC	Southern Iran	73-74
	INC.M	Minab Incised Ware	14th–15thC	Minab, Southeast Iran	74-75
	HAGRIT	Hard Grit-Tempered Cream/Pink Coloured Ware	12th–15thC	Southern Iran	75-76
	INCIMP	Incised and Impressed Ware	17th–19thC	Jarun Island, Southeast Iran	76-77
Non-Identified Coarse Ware	CW.N-ID	Non-Identified Coarse Wares	Not known	Not known	77
South Asian Coarse Ware	IRPW	Indian Red Polished Ware	1st–8thC	Gujarat Province, India	77-78
	IRPW.RC	Indian Red Polished Ware Related Class	1st–8thC	Gujarat Province, India	78-79

Group	Class Code	Class Name	Date	Origin	Page(s)
	HARMIC	Hard Micaceous Red Ware	7th–10thC?	South Asia	79-80
	BRISAN	Brittle Sandy Painted Ware	7th–10thC?	South Asia	81-82
	SBBW	Soft Black-Burnished Ware	7th–9thC	Gujarat Province, India	82-83
	BUFRAB	Buff Red and Black Ware	8th–10thC	Western India	83-84
	LINVES	Large Indian Storage Vessels	8th–10thC	Western India	85
	IRAB	Indian Red and Black Ware	11th–14thC	Gujarat Province, India	86-87
	INCOP	Mixed Indian Cooking Pots	Not known	South Asia	87
East African Coarse Ware	EACOP	East African Cooking Pots	8th–12thC	East Africa	87-89
Blue/Green Alkaline-Glazed Ware	TURQ.YG	Yellow-Green Alkaline-Glazed Ware	5th–mid-8thC	Southern Iraq	89-90
	TURQ.T	Turquoise Alkaline-Glazed Ware	3rd–10thC	Southern Iraq	90-91
Glazed Moulded Ware	GLAMO.Y	Yellow-Glazed Moulded Ware	late 8th–9thC	Southern Iran?	92-93
Opaque-Glazed Ware	OPAQ.W	Monochrome White Opaque-Glazed Ware	early 9th–10thC	Southern Iraq	93-94
	OPAQ.C	Cobalt-Decorated Opaque-Glazed Ware	early 9th–mid-9thC	Southern Iraq	94
	OPAQ.WC	White on Cobalt Opaque-Glazed Ware	early 9th–mid-9thC	Southern Iraq	95
	OPAQ.TS	Turquoise Splashed Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	95-96
	OPAQ.TBS	Turquoise and Black Splashed Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	96-97
	OPAQ.LG	Opaque-Glazed Ware with Monochrome Gold Lustre	late 9th–10thC	Southern Iraq	97
	OPAQ.LR	Opaque-Glazed Ware with Monochrome Ruby Lustre	mid-9th–late 9thC	Southern Iraq	97-98
	OPAQ.LP	Opaque-Glazed Ware with Polychrome Lustre	mid-9th–late 9thC	Southern Iraq	98-99
	OPAQ.PS	Polychrome Splashed Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	99
	OPAQ.T	Monochrome Turquoise Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	100
	OPAQ.B	Monochrome Black or White on Black Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	100-101
	OPAQ.BW	Black on White Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	101
	OPAQ.BT	Black on Turquoise Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	101-102
	OPAQ.CP	Eggshell/White Ware Painted with Coloured Opaque Glaze	early 9th–mid-9thC	Southern Iraq	102-103
	OPAQ.N-ID	Non-Identified Opaque-Glazed Ware	early 9th–10thC	Southern Iraq	103-104
	SPLASH.GW1	Green and White Splash-Glazed Ware – Cream Body	mid-9th–10thC	Southern Iraq	104-105

Group	Class Code	Class Name	Date	Origin	Page(s)
Clear Splash-Glazed Ware	SPLASH.GW2	Green and White Splash-Glazed Ware – Orange Body	mid-9th–10thC	Southern Iran	105-106
	SPLASH.P1	Polychrome Splash-Glazed Ware – Cream Body	mid-9th–10thC	Southern Iraq	106-107
	SPLASH.P2	Polychrome Splash-Glazed Ware – Orange Body	mid-9th–10thC	Southern Iran	107-108
Early Sgraffiato	GRAF.EP1	Early Polychrome Splashed Sgraffiato – Cream Body	early 10th–mid-11thC	Southern Iran	108-110
	GRAF.EP2	Early Polychrome Splashed Sgraffiato – Orange Body	early 10th–mid-11thC	Southern Iran	110-111
	GRAF.EG	Early Monochrome Green Sgraffiato	early 10th–mid-11thC	Southern Iran	111-112
	GRAF.EY	Early Monochrome Yellow Sgraffiato	early 10th–mid-11thC	Southern Iran	112-113
	GRAF.TL	Thin-Lined Sgraffiato	early 10th–mid-11thC	Southern Iran	113-114
Late Sgraffiato	GRAF.H	Hatched Sgraffiato	mid-11th–12thC	Tiz, Southeast Iran	114-116
	CHAMP	Champlevé Sgraffiato	mid-11th–13thC	Tiz, Southeast Iran	116-117
	GRAF.DI	Deeply Incised Splashed Sgraffiato	mid-11th–13thC	Southern Iran	117-118
	GRAF.LP	Late Polychrome Sgraffiato	mid-11th–13thC	Southern Iran	118-119
	GRAF.GW	Green on White Splashed Sgraffiato	mid-11th–13thC	Southern Iran	119
	GRAF.GYB	Green, Yellow and Brown Splashed Sgraffiato	mid-11th–13thC	Southern Iran	120
	GRAF.S	Slip-Painted Sgraffiato	mid-11th–13thC	Southern Iran	121
	GRAF.G	Monochrome Green Sgraffiato	mid-11th–13thC	Southern Iran	122-123
	GRAF.Y	Monochrome Yellow Sgraffiato	mid-11th–13thC	Southern Iran	123-124
	GRAF.M	Monochrome Mustard Sgraffiato	mid-11th–13thC	Southern Iran	124-125
	MONO.G	Monochrome Green-Glazed Ware	mid-11th–13thC	Southern Iran	125
	MONO.Y	Monochrome Yellow-Glazed Ware	mid-11th–13thC	Southern Iran	126
	GRAF.N-ID	Non-Identified/Degraded Late Sgraffiato	mid-11th–13thC	Southern Iran	127
Slip-Painted Ware	SPW.BG	Slip-Painted Ware – White and Black on a Brown Ground	10th–12thC	Southern Iran	128-129
	SPW.YB	Slip-Painted Ware – Yellow and Brown on a White Ground	10th–12thC	Southern Iran	129-130
	SPW.BW	Slip-Painted Ware – Brown on a White Ground	10th–12thC	Southern Iran	130-131
	SPW.N-ID	Slip-Painted Ware – Non-Identified/Degraded	10th–12thC	Southern Iran	131-132
Frit-Bodied Ware	FRIT.EM	Early Monochrome Frit	mid-11th–13thC	Southern Iran	132-133
	FRIT.LM	Late Monochrome Frit	14th–16thC	Southern Iran	133-134
	FRIT.L	White-Glazed Frit with Gold or Red Lustre	12th–14thC	Kashan, Central Iran	134-135
	FRIT.LB	Blue-Glazed Frit with Gold Lustre	12th–13thC	Kashan, Central Iran	135-136
	FRIT.I	Incised Decorated Monochrome Frit	14th–16thC	Southern Iran	136-137
	FRIT.M	Moulded and Appliqué Decorated Monochrome Frit	12th–13thC	Southern Iran	137-138

Group	Class Code	Class Name	Date	Origin	Page(s)
	FRIT.MIN	Enamel Painted 'Minai' Frit	late 12th–early 13thC	Kashan, Central Iran	138
	FRIT.BW	Blue and White Underglaze-Painted Frit	14th–19thC	Southern Iran	139-140
	FRIT.TB	Turquoise and Black Underglaze-Painted Frit	14th–17thC	Southern Iran	140-141
	FRIT.GW	Green and White Decorated Frit	14th–17thC	Southern Iran	141-142
	FRIT.UGP	Underglaze-Painted Frit	14th–17thC	Southern Iran	142-143
	FRIT.EI	Enamel Imitation Frit	18th–19thC	Southern Iran	143-144
	FRIT.N-ID	Non-Identified Frit	14th–17thC	Southern Iran	144-145
Underglaze-Painted Ware	MGPAINT-1	Manganese Purple Underglaze-Painted – Group 1	11th–early 14thC	Bahrain?	145-146
	MGPAINT-2	Manganese Purple Underglaze-Painted – Group 2	17th–20thC	Southern Iran	146-147
	UGP.BW	Blue and White Underglaze-Painted Ware	14th–17thC	Southern Iran	147-148
	UGP.TB	Turquoise and Black Underglaze-Painted Ware	14th–17thC	Southern Iran	148-149
	UGP.CB	Crude Black Underglaze-Painted Ware	14th–17thC	Southern Iran	149-150
	UGP.BG	Brown and Green Underglaze-Painted Ware	14th–17thC	Southern Iran	150-151
	UGP	Non-Identified Underglaze-Painted Ware	14th–17thC	Southern Iran	151-152
Late Monochrome Glazed Ware	MONO.LG1	Late Monochrome Green-Glazed Ware – Group 1	14th–17thC	Kangan, Southern Iran	153-154
	MONO.LG2	Late Monochrome Green-Glazed Ware – Group 2	14th–17thC	Kangan, Southern Iran	154-155
	KHUNJ	Khunj/Bahla Ware	16th–20thC	Khunj, Southern Iran	155-156
	SPECLE.1	Blue Speckled Ware – Group 1	14th–17thC	South Arabia?	156-157
	SPECLE.2	Blue Speckled Ware – Group 2	14th–17thC	South Arabia?	158
	MONTUR	Monochrome Turquoise-Glazed War	15th–17thC	Southern Iran	159-160
Other Glazed Wares	YEMEN	Yemeni Yellow	13th–early 14thC	Yemen	160-161
	REDYEL	Red Yellow Ware	17th–19thC	Southern Iraq?	161-162
Other Glazed Objects	GT	Glazed Tiles	Not Known	Various	162
	KD.1	Kiln Debris – Trivets	Not known	Various	163
	KD.2	Kiln Debris – Stacking Bars	Not known	Various	163
	KD.3	Kiln Debris – Clinker	Not known	Various	163
	KD.4	Kiln Debris – Wasters	Not known	Various	163
Non-Identified Glazed Ware	GW.N-ID	Non-Identified/Degraded Glazed Ware	Not Known	Various	163-164
Stoneware Storage Vessels	STONE-BLU	Green-Glazed Stoneware Jars with Blue Highlights	7th–early 8thC	China	164-165
	STONE-BG1	Black-Glazed Stoneware Storage Jars – Group 1	mid-8th–early 9thC	East Asia	165-166

Group	Class Code	Class Name	Date	Origin	Page(s)
	STONE-BG2	Black-Glazed Stoneware Storage Jars – Group 2	mid-8th–early 9thC	East Asia	166-167
	DUSUN	Dusun Green-Glazed Stoneware Storage Vessels	late 8th–10thC	Guangdong Province, South China	167-168
	MTB-1	Martaban Black-Glazed Stoneware Storage Jars – Group 1	14th–17thC	Southeast Asia	169
	MTB-2	Martaban Black-Glazed Stoneware Storage Jars – Group 2	14th–17thC	Southeast Asia	170-171
Painted Stoneware	CHANG	Changsha Ware	mid-8th–9thC	Changsha, South China	171-172
White Stoneware	GWSG.1	Green on White Splash-Glazed Stoneware – Group 1	9th–10thC	Hunan Province, South China	172-174
	GWSG.2	Green on White Splash-Glazed Stoneware – Group 2	9th–10thC	Hunan Province, South China	172-174
	GYSG	Green on Yellow Splash-Glazed Ware	mid-9th–late 9thC	China	174
	GM	Green-Glazed Moulded Ware	10thC	China	175
	WWSL	Slipped White Stoneware	mid-9th–10thC	Henan Province, North China	175-177
	CIZHOU	Cizhou Ware	14thC	Hebei Province, North China	177
Green-Glazed Stoneware	STONE-GU	Guangdong Green-Glazed Stoneware	late 8th–mid-9thC	Guangdong Province, South China	177-178
	YUE.1	Yue Ware – Group 1	early 9th–mid-9thC	Shanglinhu, South China	179-181
	YUE.2	Yue Ware – Group 2	mid-9thC	Shanglinhu, South China	179-181
	YUE.3	Yue Ware – Group 3	9thC	Shanglinhu, South China	179-181
	YUE.4	Yue Ware – Group 4	10thC	Shanglinhu, South China	179-181
	YAOZ	Yaozhou Ware	11thC	Yaozhou, North China	181-182
	LQC	Longquan Celadon	late 13th–15thC	Zhejiang Province, South China	182-183
	GDC.1	Guangdong Celadon – Group 1	late 13th–15thC	Guangdong Province? South China	183-184
	GDC.2	Guangdong Celadon – Group 2	13th–14thC	Guangdong Province, South China	184
	JDC	Jingdezhen Celadon	15th–16thC	Jingdezhen, South China	184-185

Group	Class Code	Class Name	Date	Origin	Page(s)
	STONE-GRY	Grey-Glazed Stoneware	13th–mid-14thC	China	185-186
	STONE-PLG	Patchy Light Green-Glazed Stoneware	mid-8th–early 9thC	Tuan Chau, North Vietnam	186-187
	STONE-BUR	Burmese Green-Glazed Stoneware	15th–17thC	Twante, Southern Burma (Mayanmar)	187-188
	STONE-THAI	Thai Green-Glazed Stoneware	15th–early 17thC	Thailand	188-189
Porcelain	XING	Xing Ware	9th–10thC	Hebei Province, North China	189-190
	WW	White Ware	9th–12thC	China	190-191
	CWW	Carved White Ware	11th–13thC	Guangdong Province, South China	191-192
	QING	Qingbai Ware	11th–13thC	Jiangxi Province, South China	192-193
	DEHUA	Dehua White Ware	12th–13thC	Fujian Province, South China	193
	CBW.1	Chinese Blue and White – Group 1	14th–early 17thC	Jingdezhen, South China	194
	CBW.2	Chinese Blue and White – Group 2	17th–19thC	Jingdezhen, South China	195
	ENAM	Enamelled Porcelain	16th–18thC	China	195-196
	VBW	Vietnamese Blue and White	14th–16thC	Vietnam	196
Opaque-Glazed Red Ware	OPREW	Opaque-Glazed Red Ware	15th–17thC	Southeast Asia	197-198
East Asian Non-Identified	EAST.N-ID	Non-Identified East Asian	Not known	East Asia	198
European	RWW	European Refined White Ware	19th–20thC	Europe	198-199
	STONE-EU	European Stoneware	18th–20thC	Europe	199

Table 1 *Indian Ocean pottery classification class listed by thematic grouping, as they appear in the class catalogue below.*

Class List – Alphabetical Order

Class Code	Class Name	Date	Origin	Source	Page(s)
BEARTH	Black-Fired Earthenware	2ndC BC–4thC AD	Eastern Arabia	Kush	24
BRISAN	Brittle Sandy Painted Ware	7th–10thC?	South Asia	Siraf	81-82
BSTOP	Brittle Stone-Tempered Painted Ware	3rd-6thC?	Southeast Iran	Williamson	63
BUFF.I	Incised Decorated Buff Ware	mid-8th–12thC	Southern Iraq	Siraf	36-37
BUFF.P	Plain Buff Ware	mid-8th–10thC	Southern Iraq	Siraf	38-39
BUFF.S	Stamp Decorated Buff Ware	mid-8th–12thC	Southern Iraq	Siraf	37-38
BUFRAB	Buff Red and Black Ware	8th–10thC	Western India	Siraf	83-84
CBW.1	Chinese Blue and White – Group 1	14th–early 17thC	Jingdezhen, South China	Siraf	194
CBW.2	Chinese Blue and White – Group 2	17th–19thC	Jingdezhen, South China	Siraf	195
CHAM	Crude Handmade Ware	Not known	Southern Iran	Siraf	61-62
CHAM.N-ID	Non-Identified Crude Handmade Ware	Not known	Southern Iran	Siraf	62
CHAMP	Champlevé Sgraffiato	mid-11th–13thC	Tiz, Southeast Iran	Siraf	116-117
CHANG	Changsha Ware	mid-8th–9thC	Changsha, South China	Williamson	171-172
CHOC	Chocolate Chip Ware	mid-18th–20thC	Eastern Arabia	Kush	32
CIZHOU	Cizhou Ware	14thC	Hebei Province, North China	Williamson	177
CLINKY	Clinky Fired Earthenware	4th–6thC	Southern Iran	Kush	19
CONG.G	Grey ‘Conglomerate’ Coarse Ware	3rd-5thC?	Southern Iran	Bushehr Survey	24-25
CREAC	Cream Coated Red Ware	late 8th–10thC	Siraf, Southern Iran	Siraf	25-26
CW.N-ID	Non-Identified Coarse Wares	Not known	Not known	Siraf	77
CWW	Carved White Ware	11th–13thC	Guangdong Province, South China	Siraf	191-192
DEHUA	Dehua White Ware	12th–13thC	Fujian Province, South China	Siraf	193
DUSUN	Dusun Green-Glazed Stoneware Storage Vessels	late 8th–10thC	Guangdong Province, South China	Siraf	167-168
EACOP	East African Cooking Pots	8th–12thC	East Africa	Siraf	87-89
EAST.N-ID	Non-Identified East Asian	Not known	East Asia	Siraf	198
EGG.M	Moulded Eggshell Ware	mid-8th–12thC	Southern Iraq	Siraf	50-51
EGG.PI	Plain or Incised Eggshell Ware	8th–10thC	Southern Iraq	Siraf	33-34
EGG.R	Red Eggshell Ware	9th–11thC	Southern Iran?	Kush	51
ENAM	Enamelled Porcelain	16th–18thC	China	Williamson	195-196
FIBIC	Fine Incised Buff Coloured Ware	9th–12thC	Southern Iran?	Siraf	48-49

Class Code	Class Name	Date	Origin	Source	Page(s)
FINLIM	Fine Sandy Lime-Spalled Red Ware	6th–8thC	Southern Iran	Siraf	21-22
FLAKEY	Flakey Earthenware	7th–8thC	Ras al-Khaimah, UAE	Kush	27-28
FOPW.1	Fine Orange Painted Ware – Group 1	3rd–6thC	Southeast Iran	Williamson	58-59
FOPW.2	Fine Orange Painted Ware – Group 2	3rd–6thC	Southeast Iran	Williamson	59-60
FRIT.BW	Blue and White Underglaze-Painted Frit	14th–19thC	Southern Iran	Williamson	139-140
FRIT.EI	Enamel Imitation Frit	18th–19thC	Southern Iran	Williamson	143-144
FRIT.EM	Early Monochrome Frit	mid-11th–13thC	Southern Iran	IOPC	132-133
FRIT.GW	Green and White Decorated Frit	14th–17thC	Southern Iran	Williamson	141-142
FRIT.I	Incised Decorated Monochrome Frit	14th–16thC	Southern Iran	Siraf	136-137
FRIT.L	White-Glazed Frit with Gold or Red Lustre	12th–14thC	Kashan, Central Iran	Siraf	134-135
FRIT.LB	Blue-Glazed Frit with Gold Lustre	12th–13thC	Kashan, Central Iran	Siraf	135-136
FRIT.LM	Late Monochrome Frit	14th–16thC	Southern Iran	IOPC	133-134
FRIT.M	Moulded and Appliqué Decorated Monochrome Frit	12th–13thC	Southern Iran	Siraf	137-138
FRIT.MIN	Enamel Painted ‘Minai’ Frit	late 12th–early 13thC	Kashan, Central Iran	Siraf	138
FRIT.N-ID	Non-Identified Frit	14th–17thC	Southern Iran	Williamson	144-145
FRIT.TB	Turquoise and Black Underglaze-Painted Frit	14th–17thC	Southern Iran	Williamson	140-141
FRIT.UGP	Underglaze-Painted Frit	14th–17thC	Southern Iran	Siraf	142-143
GDC.1	Guangdong Celadon – Group 1	late 13th–15thC	Guangdong Province? South China	Williamson	183-184
GDC.2	Guangdong Celadon – Group 2	13th–14thC	Guangdong Province, South China	Williamson	184
GLAMO.Y	Yellow-Glazed Moulded Ware	late 8th–9thC	Southern Iran?	Siraf	92-93
GM	Green-Glazed Moulded Ware	10thC	China	Williamson	175
GRAF.DI	Deeply Incised Splashed Sgraffiato	mid-11th–13thC	Southern Iran	Williamson	117-118
GRAF.EG	Early Monochrome Green Sgraffiato	early 10th–mid-11thC	Southern Iran	Siraf	111-112
GRAF.EP1	Early Polychrome Splashed Sgraffiato – Cream Body	early 10th–mid-11thC	Southern Iran	Siraf	108-110
GRAF.EP2	Early Polychrome Splashed Sgraffiato – Orange Body	early 10th–mid-11thC	Southern Iran	Siraf	110-111
GRAF.EY	Early Monochrome Yellow Sgraffiato	early 10th–mid-11thC	Southern Iran	Siraf	112-113

Class Code	Class Name	Date	Origin	Source	Page(s)
GRAF.GW	Green on White Splashed Sgraffiato	mid-11th–13thC	Southern Iran	IOPC	119
GRAF.GYB	Green, Yellow and Brown Splashed Sgraffiato	mid-11th–13thC	Southern Iran	IOPC	120
GRAF.H	Hatched Sgraffiato	mid-11th–12thC	Tiz, Southeast Iran	Siraf	114-116
GRAF.G	Monochrome Green Sgraffiato	mid-11th–13thC	Southern Iran	Siraf	122-123
GRAF.LP	Late Polychrome Sgraffiato	mid-11th–13thC	Southern Iran	Siraf	118-119
GRAF.Y	Monochrome Yellow Sgraffiato	mid-11th–13thC	Southern Iran	Siraf	123-124
GRAF.M	Monochrome Mustard Sgraffiato	mid-11th–13thC	Southern Iran	Siraf	124-125
GRAF.N-ID	Non-Identified/Degraded Late Sgraffiato	mid-11th–13thC	Southern Iran	Williamson	127
GRAF.S	Slip-Painted Sgraffiato	mid-11th–13thC	Southern Iran	Williamson	121
GRAF.TL	Thin-Lined Sgraffiato	early 10th–mid-11thC	Southern Iran	Siraf	113-114
GT	Glazed Tiles	Not Known	Various	Siraf	162
GW.N-ID	Non-Identified/Degraded Glazed Ware	Not Known	Various	Siraf	163-164
GWSG.1	Green on White Splash-Glazed Stoneware – Group 1	9th–10thC	Hunan Province, South China	Williamson	172-174
GWSG.2	Green on White Splash-Glazed Stoneware – Group 2	9th–10thC	Hunan Province, South China	Williamson	172-174
GYSG	Green on Yellow Splash-Glazed Ware	mid-9th–late 9thC	China	Williamson	174
HAGRIT	Hard Grit-Tempered Cream/Pink Coloured Ware	12th–15thC	Southern Iran	Siraf	75-76
HARC	Hard Fine Cream Coloured Ware	12th–15thC	Southern Iran	Siraf	49-50
HARLIM	Hard Lime-Spalled Ware	6th–8thC	Southern Iran	Siraf	19-21
HARMIC	Hard Micaceous Red Ware	7th–10thC?	South Asia	Siraf	79-80
HMPW-1	Handmade Painted Ware – Group 1	11th–13thC	Southern Iran	Siraf	68-69
HMPW-2	Handmade Painted Ware – Group 2	11th–13thC	Southern Iran	Siraf	69-70
HMPW-CC	Coarse Cream-Bodied Handmade Painted Ware	11th–13thC	Southern Iran	Williamson	70-71
HMPW-ORG	Organic-Tempered Handmade Painted Ware	11th–13thC	Southern Iran	Williamson	71-72
HMPW-RB	Red on Brown Handmade Painted Ware	11th–13thC	Southern Iran	Williamson	72-73
HMPW-SA	Fine Sandy Handmade Painted Ware	11th–13thC	Southern Iran	Williamson	73-74
HONEY	Honeycomb Ware	7th–8thC	Southern Iraq	Siraf	45-46
INC.M	Minab Incised Ware	14th–15thC	Minab	Siraf	74-75
INCIMP	Incised and Impressed Ware	17th–19thC	Jarun Island, Southern Iran	Williamson	76-77
INCOP	Mixed Indian Cooking Pots	Not known	South Asia	Siraf	87
IRAB	Indian Red and Black Ware	11th–14thC	Gujarat Province, India	Siraf	86-87

Class Code	Class Name	Date	Origin	Source	Page(s)
IRPW	Indian Red Polished Ware	1st–8thC	Gujarat Province, India	Siraf	77-78
IRPW.RC	Indian Red Polished Ware Related Class	1st–8thC	Gujarat Province, India	Siraf	78-79
JDC	Jingdezhen Celadon	15th–16thC	Jingdezhen, South China	Williamson	184-185
JULFAR	Julfar Ware	14th–20thC	Julfar, UAE	Siraf	64-65
JULFAR.PB	Purple and Black Julfar Ware	16th–17thC	Julfar, UAE	Siraf	65-66
JULFAR.RW	Red and White Julfar Ware	late 15th–17thC	Julfar, UAE	Siraf	66-68
KD.1	Kiln Debris – Trivets	Not known	Various	Williamson	163
KD.2	Kiln Debris – Stacking Bars	Not known	Various	Williamson	163
KD.3	Kiln Debris – Clinker	Not known	Various	Williamson	163
KD.4	Kiln Debris – Wasters	Not known	Various	Williamson	163
KHUNJ	Khunj/Bahla Ware	16th–20thC	Khunj, Southern Iran	Siraf	155-156
LIME	Lime-Tempered Ware	14th–19thC	Bahrain?	Siraf	31-32
LINVES	Large Indian Storage Vessels	8th–10thC	India	Siraf	85
LQC	Longquan Celadon	late 13th–15thC	Zhejiang Province, South China	Siraf	182-183
MEW	Moulded Ewers	12th–13thC	Southeast Iran	Williamson	52-53
MEW.MO	Ewer Moulds	12th–13thC	Southeast Iran	Williamson	54
MGPAINT-1	Manganese Purple Underglaze-Painted – Group 1	11th–early 14thC	Bahrain?	Siraf	145-146
MGPAINT-2	Manganese Purple Underglaze-Painted – Group 2	17th–20thC	Southern Iran	Siraf	146-147
MONO.G	Monochrome Green-Glazed Ware	mid-11th–13thC	Southern Iran	Siraf	125
MONO.LG1	Late Monochrome Green-Glazed Ware – Group 1	14th–17thC	Siraf, Southern Iran	Siraf	153-154
MONO.LG2	Late Monochrome Green-Glazed Ware – Group 2	14th–17thC	Southern Iran	Siraf	154-155
MONO.Y	Monochrome Yellow-Glazed Ware	mid-11th–13thC	Southern Iran	Siraf	126
MONTUR	Monochrome Turquoise-Glazed Ware	15th–17thC	Southern Iran	Siraf	159-160
MTB-1	Martaban Black-Glazed Stoneware Storage Jars – Group 1	14th–17thC	Southeast Asia	Williamson	169
MTB-2	Martaban Black-Glazed Stoneware Storage Jars – Group 2	14th–17thC	Southeast Asia	Williamson	170-171
OPAQ.B	Monochrome Black/White on Black Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	Siraf	100-101
OPAQ.BT	Black on Turquoise Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	Siraf	101-102
OPAQ.BW	Black on White Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	Siraf	101

Class Code	Class Name	Date	Origin	Source	Page(s)
OPAQ.C	Cobalt-Decorated Opaque-Glazed Ware	early 9th–mid-9thC	Southern Iraq	Siraf	904
OPAQ.CP	Eggshell/White Ware Painted with Coloured Opaque Glaze	early 9th–mid-9thC	Southern Iraq	Siraf	102-103
OPAQ.LG	Opaque-Glazed Ware with Monochrome Gold Lustre	late 9th–10thC	Southern Iraq	Siraf	97
OPAQ.LP	Opaque-Glazed Ware with Polychrome Lustre	mid-9th–late 9thC	Southern Iraq	Siraf	98-99
OPAQ.LR	Opaque-Glazed Ware with Monochrome Ruby Lustre	mid-9th–late 9thC	Southern Iraq	IOPC	97-98
OPAQ.N-ID	Non-Identified Opaque-Glazed Ware	early 9th–10thC	Southern Iraq	Williamson	103-104
OPAQ.PS	Polychrome Splashed Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	Siraf	99
OPAQ.T	Monochrome Turquoise Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	Siraf	100
OPAQ.TBS	Turquoise and Black Splashed Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	Siraf	96-97
OPAQ.TS	Turquoise Splashed Opaque-Glazed Ware	mid-9th–10thC	Southern Iraq	Siraf	95-96
OPAQ.W	Monochrome White Opaque-Glazed Ware	early 9th–10thC	Southern Iraq	Siraf	93-94
OPAQ.WC	White on Cobalt Opaque-Glazed Ware	early 9th–mid-9thC	Southern Iraq	Siraf	95-94
OPREW	Opaque-Glazed Red Ware	15th–17thC	Southeast Asia	Williamson	197-198
ORGPIN	Pink Organic-Tempered Ware	7th–10thC	Oman	IOPC	27
QING	Qingbai Ware	11th–13thC	Jiangxi Province, South China	Siraf	192-193
REBROS	Gritty Red/Brown-Slipped Ware	late 8th–10thC	Siraf, Southern Iran	Siraf	32-34
REDYEL	Red Yellow Ware	17th–19thC	Southern Iran	Siraf	161-162
REGTEC	Red-Grit Tempered Cream Coloured Ware	12th–15thC	Southern Iran	Siraf	29-30
RUST	Rusticated Jars	7th–8thC	Southern Iraq	Siraf	47-48
RWW	European Refined White Ware	19th–20thC	Europe	Williamson	198-199
SBBW	Soft Black Burnished Ware	7th–9thC	Gujarat Province, India	Siraf	82-83
SLIP.B	Fine Black-Slipped Ware	3rd–8thC	Southern Iran	Williamson	55-56
SLIP.PBR	Painted Brown-Slipped Ware	1st-2ndC?	Southern Iran	Williamson	57-58
SLIP.R	Fine Red-Slipped Ware	2ndC BC–6thC AD	Southern Iran	Siraf	54-55
SLIP.TB	Thick Brown-Slipped Ware	3rd–8thC	Southern Iran	Williamson	56-57
SPECLE.1	Speckled Glaze Ware – Cream Fabric Blue/Green Glaze	14th–17thC	South Arabia?	Siraf	156-157

Class Code	Class Name	Date	Origin	Source	Page(s)
SPECLE.2	Speckled Glaze Ware – Red Fabric, Mixed Colour Glaze	14th–17thC	South Arabia?	Williamson	158
SPLASH.GW1	Green and White Splash-Glazed Ware – Cream Body	mid-9th–10thC	Southern Iraq	Siraf	104-105
SPLASH.GW2	Green and White Splash-Glazed Ware – Orange Body	mid-9th–10thC	Southern Iran	Siraf	105-106
SPLASH.P1	Polychrome Splash-Glazed Ware – Cream Body	mid-9th–10thC	Southern Iraq	Siraf	106-107
SPLASH.P2	Polychrome Splash-Glazed Ware – Orange Body	mid-9th–10thC	Southern Iran	Siraf	107-108
SPORC	Soft Porous Cream Coloured Ware	late 8th–10thC	Southern Iraq	Siraf	40-41
SPOT	Spotty Ware	10th–12thC	Ras al-Khaimah, UAE	Kush	28-29
SPW.BG	Slip-Painted Ware – White and Black on a Brown Ground	10th–12thC	Southern Iran	Williamson	128-129
SPW.BW	Slip-Painted Ware – Brown on a White Ground	10th–12thC	Southern Iran	Williamson	130-131
SPW.N-ID	Slip-Painted Ware – Non-Identified/Degraded	10th–12thC	Southern Iran	Williamson	131-132
SPW.YB	Slip-Painted Ware – Yellow and Brown on a White Ground	10th–12thC	Southern Iran	Williamson	129-130
STAMP	Stamp Marked Jars	7th–8thC	Southern Iraq	Siraf	46-47
STONE-BG1	Black-Glazed Stoneware Storage Jars – Group 1	mid-8th–early 9thC	East Asia	Siraf	165-166
STONE-BG2	Black-Glazed Stoneware Storage Jars – Group 2	mid-8th–early 9thC	East Asia	Siraf	166-167
STONE-BLU	Green-Glazed Stoneware Jars with Blue Highlights	7th–early 8thC	China	Siraf	164-165
STONE-BUR	Burmese Green-Glazed Stoneware	15th–17thC	Twante, Southern Burma (Mayanmar)	Siraf	187-188
STONE-EU	European Stoneware	18th–20thC	Europe	Williamson	199
STONE-GRY	Grey Glazed Stoneware	13th–mid-14thC	China	Siraf	185-186
STONE-GU	Guangdong Green-Glazed Stoneware	late 8th–mid-9thC	Guangdong Province, South China	Siraf	177-178
STONE-PLG	Patchy Light Green-Glazed Stoneware	mid-8th–early 9thC	Tuan Chau, North Vietnam	Siraf	186-187
STONE-THAI	Thai Green-Glazed Stoneware	15th–early 17thC	Thailand	Williamson	188-189
TORP-C	Cream Coloured Torpedo Jars	mid-8th–10thC	Southern Iraq	Siraf	42-44
TORP-S	Sandy Torpedo Jars	3rd–mid-8thC	Southern Iraq	Siraf	41-42
TRC	Torpedo Jar Related Class	3rd–mid-8thC	Southern Iraq	Williamson	44-45
TURQ.T	Turquoise Alkaline-Glazed Ware	3rd–10thC	Southern Iraq	Siraf	90-91
TURQ.YG	Yellow-Green Alkaline-Glazed Ware	5th–mid-8thC	Southern Iraq	Siraf	89-90

Class Code	Class Name	Date	Origin	Source	Page(s)
UGP	Non-Identified Underglaze-Painted Ware	14th–17thC	Southern Iran	Siraf	151-152
UGP.BG	Brown and Green Underglaze-Painted Ware	17th–19thC	Southern Iran	Williamson	150-151
UGP.BW	Blue and White Underglaze-Painted Ware	14th–17thC	Southern Iran	Williamson	147-148
UGP.CB	Crude Black Underglaze-Painted Ware	14th–17thC	Southern Iran	Williamson	149-150
UGP.TB	Turquoise and Black Underglaze-Painted Ware	14th–17thC	Southern Iran	Williamson	148-149
VBW	Vietnamese Blue and White	14th–16thC	Vietnam	Williamson	196
WAPO	Cream Pots with Incised Wavy Decoration	12th–13thC	Ras al-Khaimah, UAE	Kush	29
WHITE.A	Applique Decorated White Ware	mid-8th–10thC	Southern Iraq	IOPC	35-36
WHITE.M	Moulded White Ware	mid-8th–12thC	Southern Iraq	Siraf	51-52
WHITE.PI	Plain or Incised White Ware	mid-8th–12thC	Southern Iraq	Siraf	34-35
WW	White Ware	9th–12thC	China	Siraf	190-191
WWSL	Slipped White Stoneware	mid-9th–10thC	Henan Province, North China	Williamson	175-177
XING	Xing Ware	9th–10thC	Hebei Province, North China	Siraf	189-190
YAOZ	Yaozhou Ware	11thC	Yaozhou, North China	Siraf	181-182
YEMEN	Yemeni Yellow	13th–early 14thC	Yemen	Williamson	160-161
YUE.1	Yue Ware – Group 1	early 9th–mid-9thC	Shanglinhu, South China	Siraf	179-181
YUE.2	Yue Ware – Group 2	mid-9thC	Shanglinhu, South China	Siraf	179-181
YUE.3	Yue Ware – Group 3	9thC	Shanglinhu, South China	Siraf	179-181
YUE.4	Yue Ware – Group 4	10thC	Shanglinhu, South China	Siraf	179-181

Table 2 *Indian Ocean pottery classification with classes listed in alphabetical order. Column on the right indicates the primary source of the class/fabric description, which includes the following: Kush = Kennet, 2004; Bushehr Survey = Carter, Challis, Priestman and Tofigian, 2006; Williamson = Priestman, forthcoming; Siraf = Priestman, forthcoming; IOPC = class defined for the first time during this study.*

Class Categories

Red/Grey Wheel-Made Coarse Ware

Class Code: CLINKY

Class Name: Clinky Fired Earthenware

Types: HAR-CR1, CR2

Clay: Earthenware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: CLINKY essentially shares the same characteristics as HARLIM (see below). It is a somewhat superficial category that includes vessel types that have previously been recorded as CLINKY, SMAG.B and LISV.B (Priestman, 2005a), which are distinguished from the later development of the class referred to elsewhere as SMAG and LISV (Kennet, 2004). These categories have various inherent limitations and here they are all subsumed under the HARLIM terminology. The information currently available is not sufficient to accurately describe the earlier development of the HARLIM tradition and therefore CLINKY provides a temporary stopgap that captures certain categories likely to be dated within the range of the *c*. 4th–6th centuries.

Vessel Forms: Typically, small- to medium-sized jars, with simple 'S' profile rims. Also, small- to large-sized jars, bowls and storage vessels, with distinct brittle, grey fabrics that may be part of the earlier development of the HARLIM tradition.

Parallels and Dating: 4th–6th century. The distinction in dating particularly between the class categories of CLINKY and SMAG (or CLINKY and HARLIM) was initially based on the results of a test excavation undertaken at the site of Khatt in Ras al-Khaimah (Kennet, 1998). The clearing of a section exposed through the settlement mound in Area 3 revealed a large refuse pit (Pit 7), the lower fill of which has been dated the 4th–5th centuries and contains fragments of CLINKY. Higher up within the sequence, the assemblage is dominated by SMAG (Kennet, 1998: 111, fig. 5, 11-12, fig. 6, 19). At Kush CLINKY occurs in abundance particularly within Phases W-01–E-01, dated to the 4th/5th–6th centuries (Kennet, 2004: 62, table 3). Through time, there is a clear transition, with the more complex rim forms associated with SMAG replacing the earlier vessel types and remaining as the dominant coarse ware within the assemblage through to the 8th or 9th century (Kennet, 2004: 80, table 41).

Origin: Southern Iran, possibly the general Siraf/Bushehr region.

Class Code: HARLIM

Class Name: Hard Lime-Spalled Ware

Types: HAR-OR2-5, OR8-10, OR22, CR3-5, CR9-11, CR14-17, CR21, LISV0-6, LISV8-10, LISV12, LISV15

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plates 1-2

Defining Characteristics: Hard, compact fabric, with an irregular fracture and coarse inclusions dominated by red or black platelets. The class is similar and very likely closely related to REBROS and CREAC but has more advanced sintering, a 'clinky' quality and a core consistently fired to red, dark purple, or grey. Surfaces are plain but often appear darker than the core. Vessels include a mix of

mostly medium- and large-sized bowls and jars, with a combination of simple thickened or flange rims, or complex rim types, particularly associated with small jars.

COLOUR		
Colour	Red/reddish-grey	Weak red/dark reddish-grey
Core	10R 5/8	10R 4/4
Margin	Same as core	Same as core
Surface	10R 5/1	10R 4/1

Integrity: Some variation in the degree of sintering and firing colour. The distinction between HARLIM and REBROS is at times somewhat arbitrary and difficult to maintain.

Vessel Forms: The class extends across a wide range of types, including small- and medium-sized handled jars with simple thickened rims, medium- and large-sized jars, with various forms of everted rim, and some medium- and large-sized bowls, with thickened rims, or sharply angled and square-edged flange rims. Some of the vessel types occurring in association with HARLIM are shared with REBROS and CREAC, while others occur exclusively within this class. The class is also associated with very large storage jars, often with incised decoration, which have been categorised under the LISV types.

Surface Treatment: Exterior surfaces of jars and closed bowls and interior and exterior surfaces of open bowls are mostly darker than the core, either from a late firing reduction or a reddish-brown slip covering that changes colour with the degree of reduction. Apart from the slip, most smaller vessels are plain. Large vessels are often decorated with simple, crudely incised wavy bands. Incised decoration becomes increasingly complex on large storage vessels.

Fabric: Hard, compact, well sintered fabric fired to strong red, dark purple or grey turning darker on the surface. The fracture tends to be irregular with occasional voids. Coarse grit inclusions are dominated by angular platelets fired to red, reddish-brown or black, together with some soft, rounded buff coloured sedimentary inclusions. These appear to turn yellow and partially spall in darker pieces, with more advanced sintering leaving a distinctive yellow halo around the void. The size, sorting, and frequency of coarse inclusions vary across the sample, partly on the basis of vessel size. This appears to be the same fabric as that associated with CREAC and HARLIM, but with differences in prevailing firing regime.

INCLUSIONS		
	1	2
Colour	Red/black	Buff/yellow
Size	<0.1–3mm	<0.1–2mm
Shape	Angular	Rounded
Freq.	3%	Occasional–3%
Sorting	V. poor	Good
ID	Crushed platelets	Sedimentary stone

Specifications: High density, with a compact structure, a gritty feel and an irregular fracture.

Parallels and Dating: 6th–8th century. HARLIM incorporates the class categories that have previously been recorded as SMAG and LISV (Kennet, 2004). While these groups have already started to gain traction within the archaeological literature, they appear inherently problematic categories to work with, as both essentially describe different vessel types that are likely to come from the same centres of

production. Furthermore, SMAG and LISV appear to be part of a longer production tradition that is not yet fully understood, but one can clearly see continuing on into the 9th–10th century products of the Siraf region, described below under the categories of REBROS and CREAC. At Siraf, HARLIM appears to be replaced by REBROS and CREAC, which then become the dominant coarse ware industries within the region (see above). Finds of HARLIM at Siraf may well be concentrated within the areas of earliest occupation at the site belonging primarily to the 7th–8th centuries.

Origin: Southern Iran, possibly Siraf or Bushehr.

Class Code: FINLIM

Class Name: Fine Sandy Lime-Spalled Red Ware

Types: HAR-LISV0, LISV14

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 3

Defining Characteristics: Large, thick-walled storage jars and vats with thickened rims mostly with some simple incised decoration below the rim exterior. Some vessels have a white slip wash covering the exterior, though this is not ubiquitous. In terms of fabric, FINLIM appears to be closely related to HARLIM and, to a lesser extent, to REBROS and CREAC. The fabric is predominantly fired orange, or reddish-grey. Compared with HARLIM, FINLIM has less developed sintering and does not tend to fire to strong red or purple. Although there is some variability in coarse inclusions, most sherds contain angular red platelets and numerous fine buff or grey limestone inclusions. Surfaces tend to have a compact smooth quality with some lime-spalling.

COLOUR		
Colour	Red/light red	Weak red
Core	2.5YR 5/6	2.5YR 4/2
Margin	Same as core	Same as core
Surface	2.5YR 6/4	2.5YR 5/2

Integrity: Some variation in frequency and sorting of coarse inclusions but generally consistent and distinctive.

Vessel Forms: Large thick-walled jars and vats. A common type has a closed mouth, a thickened rim flattened on the top with a slight lip, and a wide sloping shoulder (LISV11). Few vessel forms appear to have necks. Some vat forms have a wide mouth, a thickened rim and steep, barrel-shaped sides.

Surface Treatment: The upper vessel portion immediately below the rim exterior is usually decorated with simple thick-lined and shallow incised marks consisting of straight and wavy bands and short oblique or vertically aligned slashes.

Fabric: Hard, very compact fabric fired to orange or reddish-grey with minor changes through the core in more reduced examples. The fabric contains numerous coarse inclusions, most noticeably angular platelets together with fine buff or grey limestone inclusions, some of which are partially burnt out. Surfaces are generally pitted intermittently with lime-spalling.

INCLUSIONS		
	1	2
Colour	Red/black	Buff/grey
Size	<0.1–3mm	<0.1–2mm
Shape	Angular	Sub-rounded
Freq.	3%	3–7%
Sorting	V. poor	Fair
ID	Crushed platelets	Stone grit

Specifications: High density, with a compact structure, a gritty feel and an irregular fracture.

Parallels and Dating: 6th–8th century. FINLIM is equivalent to LISV.A in the Williamson Collection (Priestman, 2005a: 178-79, pl. 1). The material finds close parallel with LISV recovered in quantity from the Bushehr Peninsula, which seems to have been abandoned around the time when Siraf underwent dramatic growth (Priestman, 2005a). Similar LISV has been recorded at Sir Bani Yas, a site dated to between the mid-7th–mid-8th centuries (Carter, 2008: 86-87, figs 14: 2-7; 15) and Kush, where a scatter of material occurs up to Phase E-04 dated to the late 8th century[3] (Kennet, 2004: fig. 31). These examples can be contrasted with the LISV that came to predominate in the Siraf assemblage with a coarser fabric, more sharply incised decoration including multiple bands of rilling, and a specific range of vessel forms. Siraf-period LISV types are clearly exemplified amongst the published finds from Manda (Chittick, 1984).

Origin: Southern Iran, possibly Siraf or Bushehr.

Class Code: REBROS

Class Name: Gritty Red/Brown-Slipped Ware

Types: HAR-OR1, OR3-7, OR10-13, CR6-12, CR18-19, LISV0, LISV3-4, LISV11, LISV15, H7, SP3

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plates 4–5

Defining Characteristics: Hard, compact fabric, with an irregular fracture and coarse inclusions dominated by crushed red or black platelets. The class is similar and very likely closely related to HARLIM and CREAC but has a more varied fabric colour, including pieces fired to cream, grey or red. In addition, the surfaces are covered by a patchy reddish-brown, grey or red slip. The slip colour seems to correspond to that of the body and was mostly likely determined by firing atmosphere rather than its content. Some pieces are also left plain without a slip.

[3] Note Phase E-04 is the earlier of two Phases within Period III dated as a whole to the late 8th–early 9th century (Kennet, 2004: tables 2-3). The next phase contains the earliest Samarra horizon pottery, suggesting that only Phase E-05 extends into the early 9th century, or at least that Phase E-04 extends no later than the very early 9th century, depending on when exactly the 'Samarra horizon' was introduced.

COLOUR			
Colour	Pale yellow	Light red	Greyish-brown
Core	2.5Y 8/3	10R 5-6/6	10YR 5/2
Margin	Same as core	Same as core	Same as core
Surface	Same as core	10R 6/6	Same as core

Integrity: Fabric colour varies widely and appears to be linked to the degree of sintering, with the cream coloured fabric associated with lower-fired pieces and red and greys associated with more developed sintering. Fabric hardness and firing atmosphere also affect the appearance of the coarse inclusions.

Vessel Forms: The class extends across a wide range of types including small-, medium- and large-sized open bows, with various forms of everted rim, and closed vessels with everted rims or rilled necks. Some of the vessel types occurring in association with REBROS are shared with CREAC and HARLIM, while others occur exclusively within this class. Large plain, or incised, storage jars also represent an important component, in particular a very distinctive type with a short, vertical, heavy collar rim with deep grooves running around the exterior, possibly to provide improved purchase for the attachment of a skin cover (HAR-LISV1).

Surface Treatment: Exterior surfaces of jars, and interior and exterior surfaces of bowls, are generally covered all over with a dark grey, brown or red coloured slip. Apart from the slip, most smaller vessels are plain, or have a simple rilled neck and straight incised bands. Larger vessels are often incised with wavy bands and other motifs. Some smaller vessels also have simple incised decoration.

Fabric: Hard, compact fabric fired to buff, light orange, red or reddish-grey often with streaky variation through the core. The fracture tends to be irregular with some thin, flat voids. Coarse grit inclusions are dominated by angular platelets fired to red, reddish-brown or black, together with some soft, rounded, buff coloured lime inclusions. The size, sorting, and frequency of coarse inclusions vary across the sample, partly on the basis of vessel size. This appears to be the same fabric as that represented in association with CREAC and HARLIM, but with certain differences in firing regime.

INCLUSIONS		
	1	2
Colour	Red/black	Buff
Size	<0.1–3mm	<0.1–1mm
Shape	Angular	Rounded
Freq.	3%	Occasional
Sorting	V. poor	Good
ID	Crushed platelets	Limestone

Specifications: Average density, with a compact granular structure, a rough feel and an irregular fracture.

Parallels and Dating: Late 8th–10th century. After CREAC, REBROS appears to be the most common coarse ware class from Siraf and was most likely manufactured at the site. Exact parallels are somewhat more difficult to identify, but certainly some of the small jars and large incised storage vessels from Manda in East Africa should belong to REBROS or HARLIM, depending of the firing of the fabric (Chittick, 1984: figs 40; 41: a-b; 46). Similarly, a large incised storage vessel from Level VI at Sohar is an example

of LISV3 (Kervran, 2004: fig. 30: 2). Some vessels from the 'Barbar well' in Bahrain may belong to this class (Frifelt, 2001: 22-23, figs 30; 32).

Origin: Siraf area, Southern Iran.

Class Code: BEARTH

Class Name: Black-Fired Earthenware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: "*This is a coarse earthenware with a rough fracture and numerous white inclusions. The body is well fired, which gives it a metallic sound. It has been fired in reducing conditions to give a black appearance. The forms are usually large storage vessels and the surface of body sherds is usually covered with broad flat ribs or raised panels about one centimetre wide. Small sherds can be confused with reduced Julfar ware and the class can also easily be confused with LISV*" (Kennet, 2004: 78).

Surface Treatment: Exterior covered with wide flat ribs.

Vessel Forms: Large storage jars.

Parallels and Dating: 2nd century BC–4th century AD. "*This class seems to be closely related to the tradition of 'thick black ware' (céramique noir épaisse), which occurs at Mlayha and al-Dūr from the 2nd century BC until at least the 4th century AD (Mouton, 1992: 103, 147), but it is impossible to be certain of this identification in most cases…One sherd was recorded from al-Mataf, 28 were recorded from the 1994 Survey and 48 in the early areas at Hulaylah (Kennet, 1994: ware 16). Seven sherds were found at Kush, but only two were from Phases W-04 and E-04 in the phased sequence (7th–early 9th century). The identification of the Kush sherds is more certain than those from the survey*" (Kennet, 2004: 78).

Origin: Eastern Arabia.

Class Code: CONG.G

Class Name: Grey 'Conglomerate' Coarse Ware

Types: None

Clay: Earthenware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: Consistently grey coloured pottery through the core and surface, containing abundant black platelet inclusions. The fabric is hard but has a slightly chalky feel. Vessels are mostly medium- to large-sized jars and bowls, generally with fairly simple everted rim forms.

Integrity: Very standardised class, potentially a useful period indicator but so far not widely recognised beyond the Bushehr Hinterland Survey.

Surface Treatment: Plain.

Vessel Forms: Usually medium- to large-sized bowls and jars with plain simple forms.

Parallels and Dating: 3rd–5th century? The class occurs in a number of the assemblages recorded during the Bushehr Hinterland Survey (Carter, Challis, Priestman and Tofighian, 2006: fig. 13: 18-24, 27-29), and has subsequently been noted in small quantities in a number of assemblages within the wider area of the Persian Gulf. In the area of Bushehr and Dashtestan, the class occurs in assemblages that appear to post-date the Hellenistic period, but predate the introduction of the hard lime-spalled categories described above (HARLIM).

Origin: Dashtestan area? Southern Iran.

Rough Orange/Buff Wheel-Made Coarse Ware

Class Code: CREAC

Class Name: Cream Coated Red Ware

Types: HAR-OR1-2, OR8-9, OR12, OR14-21, OR23, CR5, CR12-13, CR20-21, LISV1, LISV7-9

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plates 6-7

Defining Characteristics: Hard, compact fabric, with frequent red or sometimes black platy grit inclusions. The core and margins are typically fired to a strong pink, or orange, with the main platy inclusions appearing red, while the surfaces are coated with a cream coloured self-slip. Some pieces, mostly smaller vessels, appear cream coloured throughout the core with the platy inclusions appearing black. A further variant is an orange fabric and a pink surface where the cream slip is particularly thin or absent.

COLOUR		
Colour	Red	Very pale brown
Core	10R 5/8	10YR 7/4
Margin	Same as core	Same as core
Surface	10R 6/6	10YR 8/4

Integrity: Very consistent and distinctive. There does remain a possibility that the black and red platy inclusions are different and that this represents two different, but closely related, products. However, there appears to be continuous variation with some pieces containing dark reddish-grey inclusions or a mixture of red and black inclusions in a single sherd. This indicates that the colour of the inclusions is more likely influenced by firing conditions.

Surface Treatment: Surface decoration is type specific. Some vessel types are plain, many have simple rilling or heavy throwing lines on the body. Particular types are consistently more elaborately decorated, such as the small- or medium-sized half-closed bowl (HAR-OR17), with deep rilling below the rim, incised wavy bands, a short strap handle and a small narrow spout on the opposing side. A large wide-mouthed, barrel-shaped vat (HAR-CR13), has a projecting crenulated 'pie crust' flange and incised wavy bands below. The full decorative repertoire consists of rilling, incised wavy bands and different forms of applied chain-ridge.

Vessel Forms: Wide range of vessel forms, mostly medium- or large-sized bowls with different types of everted rim. Some of the vessel types occurring in association with CREAC are shared with REBROS and HARLIM, while others are class specific. One of the most diagnostic and common types is an open bowl with straight flared walls and a large thickened flange rim, often with a sharp fold between the base of the flange and the side. This type has sometimes been referred to as the 'Siraf pie dish' (Costa and Wilkinson, 1987: 188). Also included are wide shallow dishes, open platters and a range of closed vessel types including small jars up to large storage vessels with incised decoration. Most jar types have a rilled collar neck. Very small vessels include lamps and flat-bottomed straight-sided cups most likely used for measuring.

Fabric: Hard, compact fabric fired to a strong reddish-orange or buff. The fracture can have a distinct laminar structure or be varied and irregular and contains some voids. Where the fabric is fired to buff, some variation with thin layers of pink can be seen in the core. Coarse grit inclusions are dominated by angular platelets fired to red, reddish-brown or black together with some soft, rounded, buff coloured, sedimentary inclusions. The size, sorting, and frequency of coarse inclusions vary across the sample, partly on the basis of vessel size. This appears to be the same fabric as that associated with REBROS and HARLIM, but with certain consistent differences in firing regime.

INCLUSIONS		
	1	2
Colour	Red/black	Buff
Size	<0.1–5mm	<0.1–1mm
Shape	Angular	Rounded
Freq.	3–10%	Occasional
Sorting	Very poor	Good
ID	Crushed platelets	Sedimentary stone

Specifications: Average density, with a compact granular structure, a rough feel and an irregular sometimes laminar fracture.

Parallels and Dating: Late 8th–10th century. CREAC appears to be the main coarse ware class represented at Siraf and was most likely manufactured at the site. The class circulated very widely within the Persian Gulf, Oman and East Africa. Identical material to that from Siraf has been recovered in field scatters and from the Arja mine complex in the hinterland of Sohar in Oman (Costa and Wilkinson, 1987: 188, fig. 99), from Manda in East Africa (Chittick, 1984: 90, figs 47: a-e; 48-49), and Bilad al-Qadim in Bahrain (Carter, 2005: 119-21, figs 4.1: 18-20, 22; 4.2: 24; 4.5: 4-5). Carter regards much of this material as being local, largely on the basis that it occurs so frequently in the assemblage (2005: 113), however direct parallels with the coarse wares manufactured at Siraf indicate that a significant portion of the unglazed pottery from Bilad al-Qadim was manufactured on the northern side of the Persian Gulf in Iran. One potential complicating factor in the identification of Siraf area coarse wares is the fact the same forms appear to have been copied elsewhere. In East Africa there are fairly frequent finds from Manda that closely imitate CREAC forms and are coated in a white slip but are clearly made from a local low-fired fabric. Similarly, at Sohar there are local imitations of Sirafi coarse wares (see ORGPIN below).

Origin: Siraf area, Southern Iran.

Class Code: ORGPIN

Class Name: Pink Organic-Tempered Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 8

Defining Characteristics: Hard, fairly coarse pinkish-buff coloured fabric that contains abundant burnt out organic inclusions in the form of short stalks. Vessels include a wide variety of small- to large-sized bowls and jars. Jars often have complex rims with ridged zones around the neck. Vessel types appear to closely mimic those associated with hard lime-spalled wares (HARLIM) but the fabric is clearly different.

Colour: Pinkish-buff

Integrity: Coherent and distinctive type so far only attested in the assemblage from Sohar in Oman.

Surface Treatment: Generally plain.

Vessel Forms: Various small-to large-sized bowls, generally with fairly thick walls and slightly thickened rims, together with a wide range of jar types, often with complex ridged zones around the neck.

Fabric: Hard and compact, fairly coarse pinkish-buff coloured fabric, with minimal colour variation through the core. The fabric contains numerous organic inclusions, which appear as burned out, short, stalk-shaped voids on the vessel surface.

Specifications: Average density, with a compact structure, a gritty feel and an irregular fracture.

Parallels and Dating: 7th–10th century. The clear stylistic links between ORGPIN and HARLIM indicate that this is likely to be a local imitation of that industry. It is therefore likely to share a similar dating. The class is also particularly well represented through the early part of the Sohar Town excavation (Kervran, 2004: fig. 10: 6-7).

Origin: Batinah, Oman. The class is so far only attested in the assemblage from Sohar, indicating probable local production.

Class Code: FLAKEY

Class Name: Flakey Earthenware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: "*These are brittle, thin-walled jars (c. 6mm) of a well-levigated clay with a sub-conchoidal fracture. They are hard fired with occasional red or black angular platelets quite similar to those seen in JULFAR. The fabric is a reddish yellow (7.5YR 8/6). The surface is covered with a distinctive matt-red slip or paint with a rough surface, which flakes off easily. Horizontal bands of incised lines seem to be common. Vessels are jars with wide mouths*" (Kennet, 2004: 85).

Surface Treatment: Surfaces generally covered by a flaky red slip.

Vessel Forms: Wide-mouthed jars.

Parallels and Dating: 7th–8th century. The class is so far only attested in the assemblage from Kush. It is a clearly defined category and the lack of comparable finds from elsewhere may reflect localised production and limited circulation. Some of the forms appear to be related to those associated with HARLIM imports, and like ORGPIN in Oman, this may be a local imitation industry. Within the Kush assemblage, two sherds occur within the stratified sequence in Phase E-03, indicating a 7th–8th century dating (Kennet, 2004: 85).

Origin: Ras al-Khaimah, UAE.

Class Code: SPOT

Class Name: Spotty Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: "*This is a very friable, notably light-weight, cream or pale olive (5Y 6/3) coloured ware with abundant air holes and dense, badly-sorted, angular, black inclusions up to 5mm in size. The body is normally between 8 and 10mm in thickness. The fracture is rough and the surface is often covered with a pale slip. The forms are normally jars or pots, with rare bowls. A further two sub-groups have been defined: Coarse Spotty (SPOT.C) and Fine Spotty (SPOT.F)*

SPOT.C – As above but the body thickness is normally between 10 and 15mm and the angular black inclusions are sometimes red. The shoulder of the vessels is often decorated with single incised wavy lines and incised comb lines.

SPOT.F – Body thickness between 4 and 8mm. The fabric is more variable than C. SPOT, the inclusions are mainly black and many are around 1mm in size. The fabric can be a little lighter and more yellow (to 2.5Y 8/4 pale yellow). Many sherds are burned to a black or reddish colour on the exterior, suggesting that they have been used for cooking. Some sherds are decorated with fine incised lines" (Kennet, 2004: 86-87).

Surface Treatment: Generally, covered by a pale slip or wash. Can also have simple incised decoration.

Vessel Forms: Mostly jars. Also a few bowls.

Parallels and Dating: 10th–12th century. The class appears to be very closely related to WAPO (see below). The main distinguishing features are generally thicker walls and a softer fabric. Both categories are so far only attested in the assemblage from Kush. The lack of comparable finds from elsewhere may reflect localised production and limited circulation. At the same time, SPOT and WAPO compare closely to CREAC. Indeed, while most pieces have a soft and crumbly fabric that is clearly different, the harder fired pieces would be very difficult to distinguish. One problem in reliably distinguishing SPOT and CREAC is that there are very few diagnostic fragments within the Kush assemblage, so the forms associated with SPOT are not well defined. At Kush "*SPOT began to circulate from Phase E-06 (9th–11th century) onwards, with only a single sherd of SPOT.C occurring in Phases E-04 and E-05. There appears*

to have been a slow transition from SPOT.C, which was predominant in the earlier Phases, towards SPOT.F, which was predominant from Phase E-08 (late 11th/early 12th century) onwards" (Kennet, 2004: 87).

Origin: Ras al-Khaimah, UAE.

Class Code: WAPO

Class Name: Cream Pots with Incised Wavy Decoration

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: "*The fabric is quite varied, most commonly it is pale yellow (2.5Y 8/2) with a rough fracture with common, small, angular, black inclusions that give the surface a slightly speckled appearance. Some sherds have many small air holes, some have lime and quartz inclusions and a more variable fracture. The ware tends to be well-fired, though not as strong or high-fired as CLINKY or LISV. The core tends to be a little pinker than the surface. There is no systematic surface treatment, most sherds seem to have been washed or wiped and a few have been treated with a salt-water slip. Nonetheless the class, which is probably more of a 'tradition' than a ware, has a distinctive creamy, well-finished look with a distinct range of forms and surface decoration…All vessels are large, wheel-made jars with incised wavy decoration on the exterior below the rim or shoulder*" (Kennet, 2004: 87). Features not mentioned in the previously published description include the frequent presence of some organic inclusions visible as short burnt out voids on the surface. Also, instead of jars, many of the forms could also be described as closed bowls. In certain respects, WAPO appears similar to CREAC which makes their differentiation slightly problematic. The key differences seem to be the somewhat different vessel forms and more finely sorted black grit inclusions associated with WAPO.

Surface Treatment: Covered with a wash and decorated by a simple incised wavy band below the rim.

Vessel Forms: Large jars.

Parallels and Dating: 12th–13th century. The class is so far only attested in the assemblage from Kush. It is a clearly defined category and the lack of comparable finds from elsewhere may reflect localised production and limited circulation. Given the similarities between WAPO and CREAC, it is conceivable that this industry emerged in the UAE to fill the vacuum left after the decline of Siraf area coarse wares in the early 11th century. At Kush "*thirty-six sherds…occur between Phase E-07 and E-11...This suggests a 12th and 13th-century date*" (Kennet, 2004: 87).

Origin: Ras al-Khaimah, UAE.

Class Code: REGTEC

Class Name: Red-Grit Tempered Cream Coloured Ware

Types: PCW-CR2, CR3, H1

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 9

Defining Characteristics: Hard, compact, cream or pink coloured ware with crushed angular red or black platelet inclusions and rounded white grits. On Type PCW-CR3, the upper exterior and rim interior is covered by a thin, patchy, red or brown coloured slip. Type PCW-CR4 has no slip but fairly elaborate, radially aligned panels of deeply incised decoration.

COLOUR		
Colour	Reddish-yellow/pink	Very pale brown
Core	5YR 7/4-6	10YR 7/4
Margin	Same as core	Same as core
Surface	5YR 8/3	10YR 8/3

Integrity: Coherent class quite similar to CREAC but with a different range of vessel forms and overall a different quality.

Vessel Forms: The class covers a narrow range of distinctive vessel types. These include a squat, wide-mouthed jar with a downward folded rim ending in a pointed lip. A short strap handle is attached on one side, with a short round spout on the opposing side (PCW-CR3). The second main type is a jar with a flared neck and multiple complex handles attached around the circumference. The handles alternate between a single rounded strap and a double strap, with modelled transverse ribs in the form of a ladder. Handles are surmounted by thick-topped ornamental thumb-stops (PCW-CR4). A final vessel type has a narrow flaring mouth, pressed together to hold in place the bottom part of a square section ring, with multiple grooves along the outer edge. These appear to be suspension loops of some sort, but it is not clear what they were attached to and what the overall vessel form looked like when complete (PCW-H1).

Surface Treatment: Surface treatments are type specific (see above). The main forms of finish include a pink or brown slip, deep, thin-lined incised decoration and complex modelling.

Fabric: Hard, compact, cream or pink coloured fabric turning darker buff or pink in the core. The fabric contains fairly frequent coarse inclusions, including crushed angular red or black platelets and rounded white inclusions.

INCLUSIONS		
	1	2
Colour	Red/black	Opaque white
Size	<0.1–1mm	<0.1–1mm
Shape	Angular	Rounded
Freq.	3%	2%
Sorting	Poor	Good
ID	Stone platelets	Rounded grit

Specifications: Average density, with a compact structure, a fine, gritty feel and clean, slightly irregular fracture.

Parallels and Dating: 12th–15th century. The class is so far only attested at Siraf. Most of the material comes from Site C in layers associated with the later occupation of the city.

Origin: Siraf area? Southern Iran.

Class Code: LIME

Class Name: Lime-Tempered Ware

Types: LIM-CR1, OR1

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 49

Defining Characteristics: Dense, thick-walled, buff coloured ware containing large sub-rounded lime inclusions. The vessels are predominantly hole-mouthed jars, with narrow expanding necks, distinctive, inverted, flat-topped rims, and short, vertical strap handles/loops on the outside. Some large, heavy, bowl forms are also associated with the same class.

COLOUR		
Colour	Light brown/pink	Very pale brown
Core	7.5YR 6/4	10YR 7/4
Margin	7.5YR 7/4	10YR 8/3
Surface	Same as margin	Same as margin

Integrity: Very consistent and readily recognisable class.

Vessel Forms: Mostly a single distinctive type of storage jar or transport container with thick, robust walls, a flat-topped, inverted flange rim, and a long, straight, gently expanding neck, with a low waist towards the base. Short, vertically aligned strap handles are applied high up, just below the rim. Some other vessel types also appear to have been manufactured in the same fabric, including a thick-walled bowl with a gently flanged, internally bevelled rim.

Surface Treatment: None.

Fabric: Very hard and dense, buff coloured earthenware, with frequent, large, sub-rounded lime inclusions and abundant, well sorted rolled quartz grits, visible through the core and on the surface. The core tends to turn slightly lighter towards the margins and the frequency of lime inclusions varies quite widely, though some lime is always present.

INCLUSIONS		
	1	2
Colour	White	Semi-translucent white
Size	0.1–5mm	0.5–1.5mm
Shape	Sub-rounded	Well rounded
Freq.	Occasional–10%	3–5%
Sorting	Very poor	Very good
ID	Lime	Rolled quartz

Specifications: Dense and compact, with a granular structure, a rough feel and a slightly irregular fracture.

Parallels and Dating: 14th–19th century. Frequent examples occur through the phased sequence from al-Mataf Mosque through Phases II–VI dated to the 14th–16th centuries (Kennet, 2004: 59, tables 7-8).

A reduction in LIME sherds in the REC Phase of both the Mosque and Occupation areas may indicate a decline in circulation at this point, however examples identified in the mid- to late 19th century occupation levels of Bu Maher Fort in Bahrain, demonstrate continued production right through to this phase (Carter, Morley & Morse, 2011: 90). Examples of the storage vessel form have been reported from a number of sites including al-Mataf (Kennet, 2004: 59, fig. 31: 'Type 105'), Qala-at al-Bahrain (Frifelt, 2001: 63, fig. 90), Bilad al-Qadim (Carter, 2005: 153, fig. 4.5: 14), and survey sites in Bahrain (Larsen, 1983: 292, fig. 69: a-b) and southern Iran (Priestman, 2005a: 210, pl. 63). A distinctive bowl type with a bevelled rim and an internal lip appears to belong to the same fabric and class. This association was also noted by Larsen (1983: 292, fig. 70: k-l).

Origin: The fabric is very distinctive and appears different from any of the coarse wares known from southern Iran. A concentration of reported finds from Bahrain may point to a Bahraini origin, though no specific production site is currently known.

Class Code: CHOC

Class Name: Chocolate Chip Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 50

Defining Characteristics: Distinctive, coarse, calcareous, cream coloured, wheel-made earthenware, containing very frequent, large, black, grit platelet inclusions, similar to those associated with Julfar ware. The vessels are often coated, on the interior and exterior, with dark brown, or black, slip but this tends to weather away. The class contains a restricted range of vessel forms, either large thick-walled bowls, with externally folded rims and squared lips, or large hole-mouthed jars with incised decoration.

Surface Treatment: Often incised decoration.

Vessel Forms: Large, thick-walled jars and bowls.

Parallels and Dating: 18th–20th century. *"…The total absence of sherds from Kush indicates that it did not circulate in Ras al-Khaimah in the Sasanian or Early Islamic periods. Only one sherd was found at al-Mataf, in Phase Rec of the Mosque (not shown in Table 7 and Table 8). In addition, three sherds were picked up in Area 74 and it has also been found associated with recent occupation at a number of other sites. The evidence confirms that this class dates to the post-al-Mataf period and can therefore been used as a post-al-Mataf type fossil*" (Kennet, 2004: 81). A more precise dating within the 'post al-Mataf' phase is indicated by small numbers of finds from the Late Islamic 1b to 2c assemblages from al-Ain indicating production between the 18th to 20th centuries (Power, 2015: table 6).

Origin: Eastern Arabia.

Fine/Sandy Buff Wheel-Made Coarse Ware

Class Code: EGG.PI

Class Name: Plain or Incised Eggshell Ware

Types: EGG-CR1-10, B1-4, H1-2

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 10

Defining Characteristics: Hard, compact, finely levigated light cream coloured fabric belonging mostly to a single vessel type, with a flat base, a low rounded body, a tall flaring neck and a single, looped handle. The handles have a rounded section and a distinctive 'turban top' thumb-stop. Vessels all have thin walls, of 4mm or less, and are generally plain. Exterior surfaces appear to have been covered in a fine self-slip, which is only discernible in the fresh section break. A few sherds have some incised decoration.

COLOUR	
Colour	Pale yellow
Core	2.5Y 8/3
Margin	Same as core
Surface	2.5Y 8/2 (outer surface)

Integrity: Coherent and distinctive class, although the distinction made between EGG.PI and WHITE.PI is fairly arbitrary. Both classes share the same fabric and, on the whole, the main difference is simply in wall thickness. However, it is notable that few vessel forms are shared between EGG.PI and WHITE.PI.

Vessel Forms: Mostly small, very thin-walled jars, with flat bases that can be simple, slightly raised with turned beaded edges, or raised on low beaded foot rings. The bodies tend to be squat and pariform with well defined angles at the beginning of tall, straight, flaring necks. Rims are fine and pointed and have a single, long, looping handles that project up from the rims and are attached below at the shoulders. Handles have a roughly circular section, often with a grooved channel running down the exterior, and have an applied thumb-stop. These have a flattened top or a more elaborate multi-tiered pinnacle or 'turban'. Other shape variants occur, including a distinctive, flared, pointed rim with a slight carination.

Surface Treatment: Mostly plain with a smooth, self-slip covering the exterior. Some vessels have a slight raised band at the top of the shoulder, immediately below the neck. Some vessels also have more elaborate decoration, including rilled necks, combed incising, chattering around the body, fine-lined incised decoration and, on some handles, detailed applied and impressed decoration.

Fabric: Compact, finely levigated, extremely lightweight and brittle, cream coloured fabric, with a smooth, chalky texture, and no visible inclusions. The fabric appears to be very closely related to, or is possibly the same as that associated with, opaque-glazed wares (see OPAQ.W).

Inclusions: None.

Specifications: Low density, with a compact chalky structure, a smooth feel and a clean semi-conchoidal fracture.

Parallels and Dating: 8th–10th century. The class is equivalent to EGG from Kush, which occurs in particularly high frequency in Phase E-06 dated to the 9th–11th century and thereafter diminishes rapidly through the remainder of the sequence (Kennet, 2004: 61, table 27, fig. 28: 'Types 67-68'). Identical vessels also occur at Susa (Kervran, 1977: figs 30: 1-2, 13-14; 31: 1-2, 5-12). A feature that is particularly striking in the Siraf assemblage is the absence of a type of small, eggshell ware jar, with squared, or slightly indented sides, sometimes with vertical linear indentations. This type is well represented at Susa (Kervran, 1977: fig. 30: 1-6) and a number of other sites. The absence of this material from Siraf may have significant chronological implications.

Origin: Southern Iraq.

Class Code: WHITE.PI

Class Name: Plain or Incised White Ware

Types: WHI-CR1-6, H1-2, F1-2

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 11

Defining Characteristics: Medium-sized jars with a compact, finely levigated, light cream coloured fabric that appears very similar, or identical to, that associated with EGG.PI. The main difference is that vessels are larger, with walls of 5mm or more thickness. Vessel forms are also different and much more diverse. Most pieces have surface decoration that can be incised, applied, or occasionally impressed.

COLOUR	
Colour	Pale yellow
Core	2.5Y 8/2-3
Margin	Same as core
Surface	2.5Y 8/2

Integrity: Coherent and distinctive class with a wide range of distinctive vessel types.

Vessel Forms: Medium-sized jars, mostly with tall, straight necks and various distinctive types of short everted, or relatively complex, thickened rims. Vessels often have a handle attached at the rim and shoulder. These are generally thick and can be rounded, flattened or have a twin rounded-section.

Surface Treatment: The large majority of vessels have surface decoration, while a few remain plain. Decoration includes a wide range of modes of application. The most common form includes rilling on the neck, but this can be combined or replaced by fine incised designs, often arranged in vertical registers, appliqué buttons placed in a band below the rim or a crenulated rim flange. Handles can be left plain or have a large, multi-tiered 'turban top' thumb-stop on the top. Other handles include double twined strips, or a thick circular-section handle with appliqué elements along the outer edge. Two particularly distinctive decorative arrangements include one jar with deeply cut radial flutings around the shoulder and bands of incised ring-and-dot motifs below (WHI-F1), and a second with a lattice of finely combed diamonds on the shoulder, each of which is filled with a large punctured dot (WHI-F2). Both arrangements find direct parallels at other sites (see below).

Fabric: Compact, finely levigated, low or medium density fabric fired to a light cream or orange-buff colour. The fabric is smooth, with a chalky texture, and no visible inclusions, or occasionally has isolated

coarse elements and voids. The fabric appears to be closely related to, and is possibly the same as, that found on opaque-glazed wares (see OPAQ.W).

Inclusions: None.

Specifications: Low to medium density, with a compact chalky structure, a smooth feel and a clean semi-conchoidal fracture.

Parallels and Dating: Mid-8th–12th century. WHITE.PI equates largely with WHITE.C and WHITE.F from Kush (Kennet, 2004: 75), though there are minor differences. Kennet does not distinguish between wheel-made and moulded material, and ring-and-dot incised, decorated pieces are included within the closely related EGG class rather than with the thicker-walled WHITE category. At both Kush and Bilad al-Qadim, the evidence points towards the decline of thin-walled, plain EGG towards the end of the 10th century and the growth of thicker-walled and more elaborately decorated WHITE categories during the 11th–12th centuries (Kennet, 2004: 57, 61, tables 25-27, figs 29-30; Carter, 2005: 115, 121, 130, 138, 146). At Siraf most of the WHITE.PI most likely relates to the later occupation of the site, however, this does not exclude the possibility of particular types being of earlier date, extending back to the later 8th century. Similarly, the tradition of fine, cream coloured vessels continues into the al-Mataf sequence up to the 15th century (Kennet, 2004: 57) and certain types here could potentially be dated later than the 12th century, though this seems much less likely given the consistency displayed within the class. Further close parallels for the class can be found at Susa (Kervran, 1977: figs 24: 1-13; 27: 2-14) including matches for the two distinctive decorative schemes described above (WHI-F1 = Kervran, 1977: figs 27: 2, 4-5; 28: 5-6, pl. XI: 7-8 and WHI-F2 = fig. 27: 9, 11, pl. XI: 6).

Origin: Southern Iraq.

Class Code: WHITE.A

Class Name: Applique Decorated White Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 12

Defining Characteristics: Medium-sized jars, with a compact, finely levigated, light cream coloured fabric that appears very similar, or identical, to that associated with EGG.PI and WHITE.PI. The main distinguishing characteristic from the other classes is that the exterior surfaces are elaborately decorated with a combination of applique and incised elements. Walls are generally around 4-6mm thick.

COLOUR	
Colour	Pale yellow
Core	2.5Y 8/2-3
Margin	Same as core
Surface	2.5Y 8/2

Integrity: Coherent and distinctive variant of the white ware category.

Vessel Forms: The decoration appears to be associated with medium-sized jars, but the overall vessel forms have not been established.

Surface Treatment: Extremely elaborate combinations of fine, incised decoration and applied elements. Often the applique is in the form of creepers and vines.

Fabric: Compact, finely levigated, low or medium density fabric, fired to a light cream or orange-buff colour. The fabric is smooth, with a chalky texture, and no visible inclusions.

Inclusions: None.

Specifications: Low to medium density, with a compact chalky structure, a smooth feel and a clean semi-conchoidal fracture.

Parallels and Dating: Mid-8th–10th century. This is a particularly elaborate version of white ware that is so far attested only at a few sites and seemingly in conjunction with other elements of the glazed Samarra horizon.

Origin: Southern Iraq.

Class Code: BUFF.I

Class Name: Incised Decorated Buff Ware

Types: BUF-CR1, F1

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 13

Defining Characteristics: Closely related to WHITE.PI, but with a slightly coarser and grainier fabric that tends towards a greenish- or yellowish-buff colour rather than a pale creamy-white. Most vessels are large, necked jars with strap handles, thick walls (7–13mm) and complex incised decoration covering the shoulder region. Some plain sherds are also represented but these may come from the lower vessel portions that were undecorated.

COLOUR		
Colour	Pale yellow	Very pale brown/pale yellow
Core	5Y 8/3	7.5YR 7/4
Margin	Same as core	10YR 7/3
Surface	Same as core	2.5Y 8/2

Integrity: Coherent and distinctive class.

Vessel Forms: Few diagnostic sherds have been documented. All sherds appear to belong to large, necked jars. In some cases, the neck section is short. One large, semi-complete vessel, which may be typical, has a tall pariform body, a flat narrow base with a turned rib around the edge, a high shoulder and four equidistant looping handles attached from the top of the shoulder perhaps to the rim, though this section is missing.

Surface Treatment: Roughly smoothed exterior surfaces that are plain up to the shoulder. Shoulder regions are decorated with complex, but quite crudely incised, decoration. Often this is arranged in panels filled with cross hatching; or long arcs between the handle regions, flanked by oblique slashes or

foliar elements. Some incised decoration is also combined with limited impressed elements, mostly achieved with a multi-toothed liner implement, used to fill diamonds or 'leaves'.

Fabric: Compact, finely levigated, low or medium density fabric fired to a greenish-buff or light orange colour. The fabric is smooth, with a chalky texture and consistently contains occasional, partly burnt out yellowish-brown inclusions, voids and sometimes other infrequent mixed coarse inclusions.

INCLUSIONS		
	1	2
Colour	Brown	Voids
Size	≤0.5mm	≤1mm
Shape	Rounded	Sub-angular
Freq.	Occasional	2%
Sorting	Good	Poor
ID	Soft semi-voided material	Air pockets

Specifications: Low to average density, with a compact chalky structure, a smooth feel and a slightly irregular fracture.

Parallels and Dating: Mid-8th–12th century. BUFF.I is very closely related to WHITE.PI and essentially represents a continuation of the tradition into a large range of vessel sizes. As such, it seems likely that BUFF.I shares the same dating (see WHITE.PI above). Close specific parallels for these large vessels and the style of incised decoration with which they are associated can be found at Susa (Kervran, 1977: fig. 22: 1-7).

Origin: Southern Iraq.

Class Code: BUFF.S

Class Name: Stamp Decorated Buff Ware

Types: BUF-F2

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 14

Defining Characteristics: Large, relatively thick-walled jars (9–10mm) with handles and a fine, compact, well levigated, cream coloured fabric that sometimes turns light pink towards the core. The class appears to be closely related to BUFF.I but is differentiated on the basis of a distinctive form of decoration consisting of a series of narrow horizontal registers covering the shoulder region, filled with various repeated stamped motifs.

COLOUR		
Colour	Pale yellow	Very pale brown/pale yellow
Core	5Y 8/3	7.5YR 7/4
Margin	Same as core	10YR 7/4
Surface	Same as core	2.5Y 8/2

Integrity: Coherent and very distinctive class where surface decoration survives. Non-decorated portions would be difficult to identify.

Vessel Forms: Large jars with distinct neck break and a handle attached at the shoulder.

Surface Treatment: Mostly likely only the shoulder regions were decorated. Decoration consists of a series of narrow horizontal registers delimited with incised bands above and below, filled with repeated stamped motifs. A single stamped motif occupies one register and tends to alternate with a band formed from another motif placed in between. Stamped deigns include devices such as sets of concentric rings, concentric rings in a tear-drop shape, or floral patterns.

Fabric: Fine, compact, well levigated, cream coloured fabric, sometimes turning light pink towards the core. The matrix has a chalky quality, contains some small voids and occasional varied coarse inclusions.

INCLUSIONS	
	1
Colour	Voids
Size	≤1mm
Shape	Sub-angular
Freq.	3%
Sorting	Poor
ID	Air pockets

Specifications: Average density, with a compact structure, a smooth feel and clean fracture.

Parallels and Dating: Mid-8th–12th century. There are no known specific parallels for this distinctive class, however in terms of the fabric, decoration technique and vessel form, this appears to be part of the more general BUFF.I tradition and should share the same dating (see BUFF.I above).

Origin: Southern Iraq.

Class Code: BUFF.P

Class Name: Plain Buff Ware

Types: BUF-OR1

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 15

Defining Characteristics: Fine, slightly porous but reasonably compact, low density, greenish-cream coloured fabric. In terms of fabric, this appears to be closely related to BUFF.I. Unlike the closed vessels in that class however, BUFF.P contains a single plain open bowl type with a heavy, projecting, clubbed

rim. The type and fabric appear to be identical to that associated with TURQ.T vessels. This is most likely an unglazed version of the same production as TURQ.T.

COLOUR		
Colour	Pale yellow	Very pale brown/pale yellow
Core	5Y 8/3	10YR 7/4
Margin	Same as core	Same as core
Surface	Same as core	2.5Y 8/2

Integrity: BUFF.P is effectively a type, although it is one that does not fit within the conventional class definition. On the one hand the fabric and unglazed surfaces would place these vessels within the BUFF.I category. On the other hand, the type appears to have stronger links with the TURQ.T tradition and this is further supported by the quality of the fabric. It is very likely that glazed and unglazed versions of Type BUF-OR1/TUR-OR12 were manufactured together at the same centre(s) of production.

Vessel Forms: The class covers only a single vessel form and might thus be better placed within one of the existing classes. The type is a large, thick-walled, straight-sided, flaring, open bowl with a heavy, projecting, clubbed rim (BUF-OR1). The type is the identical to one represented within the alkaline-glazed ware tradition (TUR-OR12) and given the similarity of fabric, this can be regarded as an unglazed version of the same production.

Surface Treatment: Plain.

Fabric: Fine, slightly porous but reasonably compact, low density greenish-cream coloured fabric. The matrix has a chalky quality and contains some small voids and large, partly voided, buff-brown inclusions.

INCLUSIONS		
	1	2
Colour	Buff	Void
Size	≤1.5mm	≤1mm
Shape	Well rounded	Angular, liner
Freq.	2%	2%
Sorting	Good	Fair
ID	Soft mineral inclusions	Air pockets

Specifications: Low density, with a fine porous structure, a gritty feel and an irregular fracture.

Parallels and Dating*:* Mid-8th–10th century. BUFF.P covers a single vessel type which is the same as one associated with the later alkaline-glazed ware tradition (see TURQ.T above). The type also finds close parallel in unglazed vessels, well represented within the assemblage from Sir Bani Yas, which are dated quite narrowly between the mid-7th–mid-8th centuries, though reference to rolled quartz inclusions within the fabric of this pottery indicate that it may not be identical (Carter, 2008: 79-81, fig. 7).

Origin: Southern Iraq.

Class Code: SPORC

Class Name: Soft Porous Cream Coloured Ware

Types: HAR-LISV1

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 16

Defining Characteristics: Large, thick-walled storage jars with a fine, soft, but reasonably compact, porous, low-density, greenish-cream coloured fabric similar to that represented within the BUFF.I classes. SPORC seems to be associated with a single vessel type that has a narrow, collar neck, with deep rilling down the exterior (LISV1), and simple, incised, and applied, decoration covering the upper part of the exterior. Interior surfaces and the rim exterior are covered by a lining of bitumen similar to that associated with Torpedo Jars (TORP-S and TORP-C).

COLOUR	
Colour	Pale yellow
Core	5Y 8/2-3
Margin	Same as core
Surface	Same as core

Integrity: Only a small number of sherds belonging to this class are attested from Siraf but all are consistent and very distinctive. SPORC appears to be closely related to BUFF.I and may actually just be another type within this class.

Vessel Forms: Large, thick-walled storage jars, have a narrow collar neck with deep rilling down the exterior. The vessels were most likely used for liquid transportation. The rilled collar mouth could have been closed using a skin and sealed with a wound binding. The shoulder of the same type in other classes often has a series of short loop handles for lifting the vessels, mostly likely using a crane or winch.

Surface Treatment: Interior surfaces and rim exteriors are splashed with a lining of bitumen to seal the porous surface. In addition to the deep rilling covering the collar of the rim, the upper portion of the exterior is decorated with a series of simple fine combed bands and applied thumb impressed 'chain-ridge' strips.

Fabric: Compact but brittle, finely levigated, low or medium density fabric, fired to a greenish or yellowish-buff. The fabric is smooth, with a chalky texture, and consistently contains occasional, partly burnt out, yellowish-brown inclusions.

INCLUSIONS	
	1
Colour	Brown
Size	<0.1–2mm
Shape	Rounded
Freq.	2%
Sorting	Good
ID	Soft semi-voided material

Specifications: Low to average density, with a compact, chalky structure, a smooth feel and a slightly irregular fracture.

Parallels and Dating: Late 8th–10th century. SPORC covers a single distinctive vessel type that is more commonly associated with the hard red, or grey, lime-spalled Siraf area coarse wares (e.g. HARLIM or REBROS). These are well represented at Manda from the earliest beach scatter deposits, which contain other material from the Persian Gulf, such as appliqué decorated alkaline-glazed ware, but none of the 'Samarra horizon' glazed wares of the early 9th century (Chittick, 1984: fig. 40: c, e). This is indicative of a period of trade contact between the Persian Gulf and East Africa beginning before the early 9th century, most likely from the mid-late 8th century. LISV1 is found widely distributed within the Persian Gulf, though little has so far been published. A single, near-complete example comes from the monastery at Kharg (Steve, 2003: pl. 13: 1). At Siraf, the type continues as one of the most distinctive and best represented forms of LISV through the main period of occupation, though usually it is manufactured in local fabrics such as those associated with HARLIM, REBROS and CREAC. SPORC represents the manufacture of this same type, mostly likely in central or southern Iraq at a contemporary date.

Origin: Central or southern Iraq.

Class Code: TORP-S

Class Name: Sandy Torpedo Jars

Types: TOR-CR1, B1-2

Clay: Earthenware **Production**: Hand and wheel-made **Illustration**: Plate 18

Defining Characteristics: Tall, elongated cylindrical jars, with long, pointed bases, or short dimples, narrow necks, and rolled, thickened, collar rims. Vessels appear to be handmade, though in some cases the rim and shoulder portion are thrown and have heaving ribbing marks. Exteriors are otherwise plain, while the interior is covered by a thick coating of dark brown bitumen. The fabric is fine, rather brittle, heavily sand-tempered and fired to yellowish-buff, or more often buff-orange. Often, the exterior surface is cream coloured, while the fabric turns orange through the margin and core.

COLOUR	
Colour	Reddish-yellow/brownish-yellow/pale yellow
Core	7.5YR 6/6
Margin	10YR 6/6 (outer margin)
Surface	2.5Y 8/2 (outer surface)

Integrity: Coherent well defined class. Some variation in the fabric in terms of the size and sorting of sandy inclusions.

Vessel Forms: Tall elongated cylindrical vessels, with long, pointed bases squared off at the end, or a short dimple, with the sides more rapidly expanding. The vessels taper towards the top and have narrow mouths, with rolled and flattened lips. In comparison to TORP-C, TORP-S vessels appear to be smaller and to have thinner walls with the rims folded on the exterior and bases that include both the

dimple form and a long wedge-shaped form. While the wedge-shaped forms appear similar in both classes, with TORP-S the base remains hollow almost to the end of the point.

Surface Treatment: Plain apart from a thick, dark brown, bitumen coating covering the interior, and sometimes trickling down the exterior, from the rim.

Fabric: Hard, compact, brittle and porous fabric containing abundant, finely sorted, rolled, sandy inclusions. The fabric tends to be fired to a strong reddish-yellow in the core, turning to brownish-yellow in the outer margin, and a smooth pale yellow on the exterior surface; suggesting that the vessels were probably self-slipped.

Specifications: Average to high density, with a compact, granular structure, a gritty feel and a fine, pitted, irregular fracture.

INCLUSIONS	
	1
Colour	White, grey, red
Size	≤0.1mm
Shape	Sub-rounded
Freq.	10%
Sorting	Very good
ID	Quartz based sand

Parallels and Dating: 3rd–mid-8th century. This is the same as TORP.1-4 in the Williamson Collection (Priestman, 2005a: 208-09, pls. 64-67) and TORP from Kush (Kennet, 2004: 63). TORP-S sherds occur at a large number of coastal sites within the Persian Gulf, in India, and around the Arabia peninsula. Most of the dated contexts where they occur belong to the later Sasanian and Early Islamic periods. In addition to the 13 findspots identified on the Iranian coast of the Persian Gulf by Williamson (Priestman, 2005a), TORP-S has been recovered from Kush; where 25 sherds occur within the phased sequence, with a concentration between Phases W-03–E-04, dated to between the 4th–later 8th centuries (Kennet, 2004: 63, table 3, fig. 36: 'Type 74'). Examples also come from Jazirat al-Ghanam, a Sasanian watch station on the Musandam Peninsula dated to the mid to late Sasanian period (de Cardi, 1975: 55, fig. 8: 36), and Sohar, where illustrated pieces occur in Levels II and V of the Sohar Town 1986 excavation and Level V of the Sohar Moat IV excavation dated by the excavator to between the mid-2nd–late 9th centuries (Kervran, 2004: tables 1-2, figs 10: 15; 11: 6; 22 bis: 3; 24: 2).

Origin: Southern Iraq or southwest Iran.

Class Code: TORP-C

Class Name: Cream Coloured Torpedo Jars

Types: TOR-CR2-3, B3

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 17

Defining Characteristics: Large, tall, wide-bellied jars, with long, pointed bases, narrow necks and thickened rims. Vessels appear to be handmade, though in some cases the rim and shoulder portion are thrown and have heaving ribbing marks. Exteriors are smoothed but are otherwise plain. Interior surfaces are covered by a thick coating of dark brown bitumen. The fabric is fine and rather brittle, with

a chalky texture, a low density and fired to buff, or greenish-cream. Under magnification, the fabric has a distinctive appearance, with abundant small voids, red grit inclusions and a relatively low sand content. Sometimes, the red grit appears partially burnt out, leaving voids with a red halo.

COLOUR	
Colour	Pale yellow
Core	5Y 8/3
Margin	Same as core
Surface	Same as core

Integrity: Well defined, distinctive class.

Vessel Forms: Large, thick-walled jars, with long, pointed bases squared off at the end. The vessels have a wide bellies that taper towards the rim. The rims are heavily thickened, with projecting bulbs on the interior, and the lips coming to a point.

Surface Treatment: Plain, apart from a thick dark brown bitumen coating covering the interior, and sometimes trickling down the exterior, from the rim.

Fabric: Fine, compact, slightly porous and brittle yellowish- or greenish-buff coloured fabric, with a smooth, chalky texture and abundant fine, red grit and voids, together with quartz and occasional black grit inclusions. The red grit appears to burn out to form the voids; some pieces contain fewer voids and more red grit, while other contain almost entirely voids. The voids can also be slightly discoloured with red around the edges. Unlike the more typical TORP-S fabric, this has a finer texture and possibly lower sand content with less visible quartz grains.

INCLUSIONS			
	1	2	3
Colour	Red grit	White and black	Voids
Size	≤0.1mm	≤0.1mm	≤0.1mm
Shape	Sub-angular	Sub-rounded	Sub-angular
Freq.	0–10%	7%	0–10%
Sorting	Very good	Very good	Very good
ID	Red grit	Quartz and mineral grit	Burnt out red grit

Specifications: Low density, with a compact semi-porous structure, a fine, gritty feel and pitted irregular fracture.

Parallels and Dating: Mid-8th–10th century. This is broadly related to TORP.1-4 in the Williamson Collection (Priestman, 2005a: 208-09, pls. 64-67) and TORP from Kush (Kennet, 2004: 63). Torpedo Jars are a type of amphora, which have a very long currency within the Persian Gulf spanning the period from the 3rd to 9th or 10th century. TORP-C is a particularly distinctive category that can be clearly distinguished from the rest of the tradition on the basis of the lighter yellowish-buff coloured fabric, with fewer sandy inclusions, fine red grit and, perhaps most obviously, specific aspects of the vessel form, including the large scale of the vessels, a rim type with a heavy internal bulb and bases that are long, pointed and solid throughout the point. TORP-C seems to belong to the last phase of the TORP

tradition. It appears to be absent from the sites on the Bushehr peninsula, where Torpedo Jars are found in abundance. At Sir Bani Yas, which was abandoned around the mid-8th century, most of the Torpedo Jars are of a type consistent with those from Bushehr (Carter, 2008: 85, fig. 13), however there are two sherds within the assemblage that represent a direct match to TORP-C (personal observation[4]), suggesting that the class had begun to circulate from as early as the mid-8th century. This same variant occurs at Sohar Level V (Kervran, 2004: figs 22 *bis*: 3; 24: 2), Manda period Ia (Chittick, 1984: 88, fig. 43: a-c), Mantai[5] and amongst the finds from the Phanom Surin shipwreck (Guy, 2017: 185, 187, fig. 9-10).

Origin: Southern Iraq or southwest Iran.

Class Code: TRC

Class Name: Torpedo Jar Related Class

Types: None defined

Clay: Earthenware **Production**: Hand and wheel-made? **Illustration**: Plate 19

Defining Characteristics: The class displays the same fabric as TORP-S but with an entirely different set of forms, including short-necked jars and heavy open bowls with simple rims. In the Williamson classification, this group has been further sub-divided into TRC.1 with a yellow fabric and TRC.2 with a coarse, sandy, orange-brown fabric (Priestman, 2005a: 209), but here no attempt has been made to separate out the sandy Torpedo Jar fabrics, as any consistent distinctions appear to be difficult to maintain (Tomber, Carter and Priestman, 2010).

COLOUR	
Colour	Pale yellow
Core	2.5Y 7/4
Margin	Same as core
Surface	2.5Y 7/3

Integrity: Coherent, well defined class but with some variation in the fabric in terms of the size and sorting of sandy inclusions.

Surface Treatment: Plain smoothed surfaces.

Vessel Forms: Narrow-mouthed jars, with rolled and flattened lips. Also, some large, open bowl or basin forms with everted lips.

Fabric: Hard, light yellow, fine, sandy earthenware. Under low magnification, many small voids are visible, together with black grits, and very small, red flecks that are only just visible.

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[4] I am grateful to Dr. Robert Carter for facilitating the direct comparison of samples of Torpedo Jars from Sir Bani Yas with those from Siraf at the British Museum and for discussions regarding the material.
[5] There are eight unpublished sherds from Carsewell's 1980-1984 excavations at Mantai in the Asia Department at the British Museum, one of which is a clear example of TORP-C (Reg. No. 2007,3027.2).

INCLUSIONS			
	1	2	3
Colour	Black	Semi-translucent white	Red
Size	0.1–0.5mm	0.25mm	0.1mm
Shape	Sub-angular	Rounded	Sub-angular
Freq.	0–5%	0–5%	0–5%
Sorting	Good	Very good	Good
ID	Stone grit	Quartz	Stone grit

Specifications: Average weight, with a compact, granular, and slightly porous structure, a fine, gritty feel and a fine, irregular fracture.

Parallels and Dating: 3rd–mid-8th century. Similarities between TRC and TORP-S, particularly in relation to the fabric, suggest that TRC should be dated to the same period (see TORP-S above).

Origin: Southern Iraq or southwest Iran.

Class Code: HONEY

Class Name: Honeycomb Ware

Types: BUF-F4

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 20

Defining Characteristics: Heavy, handmade, storage jars, with distinctive honeycomb effect decoration produced by lines of closely spaced, fingertip impressions covering most of the exterior but stopping before the base and neck. The fabric is hard, yellow or yellowish-green, with a consistent background of fine red grit and rolled quartz inclusions.

COLOUR	
Colour	Pale yellow
Core	5Y 7/4
Margin	Same as core
Surface	2.5Y 7/4

Integrity: Coherent and readily recognisable.

Vessel Forms: Large thick-walled jars.

Surface Treatment: Exterior surface marked with rows of closely spaced circular finger impressions.

Fabric: Hard, light yellow, fine, sandy earthenware. Under low magnification, many small voids are visible, together with very small red flecks and rolled sandy quartz inclusions.

INCLUSIONS		
	1	2
Colour	Red	Semi-translucent white
Size	<0.1mm	≤0.1mm
Shape	Sub-angular	Rounded
Freq.	3%	Occasional
Sorting	Very good	Very good
ID	Red flecks	Quartz grains

Specifications: Average weight, with a compact, granular and slightly porous structure, a fine, gritty feel and a fine, irregular fracture.

Parallels and Dating: 7th–8th century. The class was at one time regarded as a Sasanian type-fossil (Adams, 1965: fig. 14: m). In fact, none have been recovered from a Sasanian context. The only securely dated finds include a single sherd from Kush, in Phase E-05, related to the 8th–9th century (Kennet, 2004: 59, table 3). Other finds are attested from 7th–8th century occupation contexts at Tulul al-Ukhaydir (Finster and Schmidt, 1976: 148), al-Qusur (Patitucci and Uggeri, 1984: 195, 204, tav. LX: b) and Area D at Jazirat al-Hulaylah (Sasaki, and Sasaki, 1996: fig. 46: 95-43, 95-34).

Origin: Southern Iraq.

Class Code: STAMP

Class Name: Stamp Marked Jars

Types: BUF-F3

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 21

Defining Characteristics: Large thick-walled handmade jars, with uneven interior surfaces and carefully smoothed exteriors. The main defining feature is the presence of a round stamp mark placed on the shoulder region of the exterior. The fabric is fine, greenish-cream coloured and contains some fine, well sorted, sandy grit, and organic inclusions.

COLOUR	
Colour	Pale yellow
Core	5Y 8/2
Margin	Same as core
Surface	Same as core

Integrity: Reasonably consistent characteristics, but it is not clear whether body sherds without stamp marks would be easy attributed to the same class.

Vessel Forms: Large thick-walled jar with a rounded globular body.

Surface Treatment: Exterior surfaces are plain and smooth with round stamped marks on the shoulder. Stamped marks are between 2.5–2.8cm in diameter and consist of intricately segmented concentric rings.

Fabric: Compact, fine, greenish-cream coloured fabric, with a soft, chalky, semi-porous structure. In the fresh section some stalky organic inclusions are visible, together with occasional finely sorted, mixed, sandy grits.

INCLUSIONS		
	1	2
Colour	Black, white, red	Yellow or void
Size	≤0.1mm	3mm
Shape	Sub-rounded	Elongated
Freq.	Occasional	Occasional
Sorting	Good	Very poor
ID	Mixed sandy grits	Stalky organic inclusions

Specifications: Average density, with a compact, semi-porous structure, a fine, gritty feel and fine irregular fracture.

Parallels and Dating: 7th–8th century. The class was at one time regarded as a Sasanian type-fossil (Adams, 1965: 14: b-d), however only particular types of stamp mark appear to be associated with the Sasanian period (Simpson, 2013). The segmented concentric circular stamp motif appears to be diagnostic of later Stamp Marked jars that belong the Early Islamic period. Large numbers of jars with identical motifs have been recovered from the early 8th century site of al-Qusur (Patitucci and Uggeri, 1984: figs 55: 579; 56: 603; 57: 618-19; 61: 662; 74: 743; 89: 556). A further example is attested from the 7th–8th century occupation of Jazirat al-Hulaylah (Sasaki and Sasaki, 1996: fig. 46: 95-19).

Origin: Southern Iraq.

Class Code: RUST

Class Name: Rusticated Jars

Types: BUF-F5

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 22

Defining Characteristics: Large, handmade jars with a fine, hard, yellowish-buff coloured fabric. Interior surfaces are extremely uneven with finger impressions in the surface; exteriors are smoothed flat and have broad sets of combed lines arranged in long, continuous loops, executed when the vessel surface was still extremely wet and soft.

COLOUR	
Colour	Pale yellow
Core	5Y 8/3
Margin	Same as core
Surface	5Y 8/2

Integrity: So far only attested on the basis of two sherds from Siraf.

Vessel Forms: Large jars with medium-thickness walls.

Surface Treatment: Vertical registers of long, continuous, looping lines, executed by a two or three toothed comb with broad ends (2–5mm wide) while the vessel surface was still extremely wet and soft.

Fabric: Compact, finely levigated, slightly brittle and semi-porous, yellowish-buff coloured fabric, which contains lumps of yellowish-orange material, that has partially burnt out to form voids with discoloration towards the margins.

INCLUSIONS	
	1
Colour	Yellowish-orange
Size	≤1.5mm
Shape	Rounded
Freq.	2%
Sorting	Fair
ID	Burnt out material

Specifications: Average density, with a compact semi-porous structure, a gritty feel and an irregular fracture.

Parallels and Dating: 7th–8th century. No known parallels for this class, though the fabric and mode of vessel manufacture suggest that RUST is closely related to STAMP and HONEY and should therefore share a similar dating (see discussion of STAMP and HONEY above).

Origin: Southern Iraq.

Class Code: FIBIC

Class Name: Fine Incised Buff Coloured Ware

Types: PCW-CR1

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 23

Defining Characteristics: Large, straight-necked vessels, with handles, comb incised decoration on the exterior, and a fine, hard and very compact orange fabric containing mixed sandy inclusions. Compared with other vessels within the LISV category, the fabric is fine, and the walls are relatively thin.

COLOUR	
Colour	Light brown
Core	7.5YR 6/4
Margin	Same as core
Surface	Same as core

Integrity: Under low magnification the fabric appears rather varied and there may be more than one class represented.

Vessel Forms: Large jars, with straight necks, wide, flat, strap handles attached below the rim and at the shoulder, and thickened rims.

Surface Treatment: Between the rim and handle, the neck portion has deep rilling. Further down, the neck and shoulder are decorated with straight, wavy and arcing bands of broad comb incised lines.

Fabric: Hard, compact and fine-grained, sandy fabric, fired to a consistent pale orange. Under low magnification, the fabric has a fine, grainy structure and mixed sandy inclusions.

Inclusions: Varied.

Specifications: Average density, with a compact structure, a fine, gritty feel and an irregular fracture.

Parallels and Dating: 9th–12th century. No specific parallels are known for this material. In general, FIBIC falls somewhere between the LISV definition and incised wares, more often represented on a fine, cream coloured fabric, such as BUFF.I. The dating seems more likely to be aligned with the latter.

Origin: Southern Iran?

Class Code: HARC

Class Name: Hard Fine Cream Coloured Ware

Types: PCW-CR4-5

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 24

Defining Characteristics: Fine, hard, cream coloured ware sometimes turning pink in the core. The fabric contains no visible inclusions, but a certain level of variation in fabric quality indicates that there may actually be more than one class represented. All sherds belong to small- or medium-sized jars.

COLOUR		
Colour	Pale yellow	Reddish-yellow/pale yellow
Core	2.5Y 8/3	5YR 7/6
Margin	Same as core	Same as core
Surface	2.5Y 8/2	2.5Y 8/2

Integrity: Class distinctions are difficult to establish due to the complete lack of visible coarse inclusions.

Vessel Forms: Mostly small- to medium-sized jars. Two distinctive forms occur. One has a rounded dome topped rim (PCW-CR4). The second has a straight neck, with an internally thickened lip and a deep, narrow groove below the exterior lip (PCW-CR5).

Surface Treatment: Interior and exterior surfaces appear to be covered by a thin cream self-slip wash but otherwise are left plain.

Fabric: Hard, compact, finely levigated, cream coloured fabric sometimes turning pink in the core. The fabric contains no visible inclusions and has a fine, grainy texture and a clean, semi-conchoidal fracture.

Inclusions: None.

Specifications: Average density, with a compact structure, a fine, gritty feel and a slightly irregular semi-conchoidal fracture.

Parallels and Dating: 12th–15th century. The class may be equivalent to FINT in the Williamson Collection. Certainly, some of the forms appear to be the same, however, in the Williamson Collection classification FINT appears rather an ill-defined category (Priestman, 2005a: 186, pl. 17). Most of the HARC from Siraf comes from deposits situated close to the surface associated with other relatively late pottery such as JULFAR, LIME, MGPAINT-1, etc. This material all relates to the later occupation of the city after the main period of the decline, which occurred during the late 10th–early 11th century.

Origin: Southern Iran.

Fine Moulded Ware

Class Code: EGG.M

Class Name: Moulded Eggshell Ware

Types: None defined

Clay: Earthenware **Production**: Moulded **Illustration**: Plate 25

Defining Characteristics: Thin-walled vessels (2–3mm), with a finely levigated, compact, light cream coloured fabric and extremely detailed moulded decoration on the exterior. Vessels appear to have been slip-moulded and the decoration appears in relief, apart from on handles where it is stamped.

COLOUR	
Colour	Very pale brown/pale yellow
Core	10YR 8/3
Margin	2.5Y 8/2
Surface	5Y 8/2

Integrity: Coherent class.

Vessel Forms: In the assemblage from Siraf, a number of sherds are associated with an unusual multi-faceted vessel, the overall form of which cannot be established. Another one-off form includes a small, short, and straight-sided bowl, or possibly a lid, with a squared and internally bevelled rim.

Surface Treatment: Exterior surfaces are covered by extremely intricate relief moulded decorations, consisting of finely beaded borders around floral freezes, or sets of repeated floral elements.

Fabric: Compact, finely levigated, low-density fabric, fired to a light cream colour, turning slightly pink towards the core. The fabric has a smooth, chalky texture, with no visible inclusions. It appears to be very closely related to, and is possibly the same as that associated with, EGG.PI and opaque-glazed wares (see OPAQ.W).

Inclusions: None.

Specifications: Low density, with a compact chalky structure, a smooth feel and a clean, semi-conchoidal fracture.

Parallels and Dating: Mid-8th–12th century. There are no known precise parallels for this moulded pottery, however it appears to be part of the same production tradition as EGG.PI (see above). At Kush, eggshell wares are described as including some moulded material, suggesting that the distinction made here, between thrown and moulded categories, has not been implemented in that study (Kennet, 2004: 61).

Origin: Southern Iraq.

Class Code: EGG.R

Class Name: Red Eggshell Ware

Types: None defined

Clay: Earthenware **Production**: Moulded **Illustration**: None

Defining Characteristics: "*This is an eggshell-like, very thin-walled ware made of a much harder-fired fabric with a distinctive reddish core (2.5YR 7/6) and a pale-yellow slip on the interior and exterior (5Y 8/3). The vessels appear to be wheel made rather than mould made*" (Kennet, 2004: 83).

Integrity: The class is only attested at Kush, where all sherds possibly come from the same vessel. In any case, this is a distinctive class.

Surface Treatment: Not specified.

Vessel Forms: Jars.

Parallels and Dating: 9th–11th century. "*With a single exception all of the sherds in the phased sequence come from Phase E-06 (9th to 11th century) suggesting that this class had a very limited lifespan at Kush…[however] many of the sherds are from contexts 1811 and 1812, and may be from the same vessel*" (Kennet, 2004: 83).

Origin: Southern Iran?

Class Code: WHITE.M

Class Name: Moulded White Ware

Types: None defined

Clay: Earthenware **Production**: Moulded **Illustration**: Plate 26

Defining Characteristics: Compact, finely levigated, light cream, or light orange coloured, fabric that appears similar to, or the same as, that represented in association with WHITE.PI and EGG.PI/M. Vessels are mostly medium-sized jars, with globular bodies and out-turned foot rings. Exterior surfaces have raised, relief decoration. The class is readily distinguishable from EGG.M by having thicker walls (5–

6mm), simpler decoration and surfaces that remain rather rough and uneven. Heaving join lines on the interior, show where the vessels were slip-cast in separate pieces and luted together.

COLOUR	
Colour	Pale yellow
Core	2.5Y 8/2-3
Margin	Same as core
Surface	2.5Y 8/2

Integrity: Fairly consistent, though it has not yet been possible to work with a large assemblage.

Vessel Forms: Mostly medium-sized jars, with well developed, short, out-turned foot rings, rounded globular bodies, and tall, straight, flaring necks, ending in simple pointed lips. Some other one-off types are represented in the assemblage from Siraf, including a small press-moulded disc, or platter, with a raised lip, and radial decoration filling the interior, identical to an illustrated example from Susa (Kervran, 1977: fig. 28: 16).

Surface Treatment: Simple, raised, relief decoration covering the shoulder and neck regions of jars. Common designs include horizontal registers of intertwined calligraphy or repeated decorative elements.

Fabric: Compact, finely levigated, low or medium density fabric, fired to a light cream or orange-buff colour. The fabric is smooth, with a chalky texture and no visible inclusions.

Inclusions: None.

Specifications: Low to medium density, with a compact chalky structure, a smooth feel and a clean, semi-conchoidal fracture.

Parallels and Dating: Mid-8th–12th century. There are no known precise parallels for this class, however it appears to be closely related to EGG.PI/M and WHITE.PI and therefore a similar dating seems most probable.

Origin: Southern Iraq?

Class Code: MEW

Class Name: Moulded Ewers

Types: None defined

Clay: Earthenware **Production**: Moulded **Illustration**: Plate 27

Defining Characteristics: Highly ornate vessels, manufactured in several sections in press moulds, with the separate sections crudely luted together. Decoration covers most of the vessel exterior. The fabric is slightly porous and brittle. The colour varies between dark to light grey, brown, or orange. This may be indicative of several different centres of production. Variation in wall thickness and base and neck size suggests that several different sizes of the same vessel form were manufactured.

COLOUR		
Colour	Grey	Light brown
Core	2.5Y 5.5/1	7.5YR 6/4
Margin	Same as core	Same as core
Surface	Same as core	7.5YR 7/3

Integrity: Distinctive class, but there is evidence for the manufacture of these vessels from several different locations through southeast Iran. Closer study of fabrics and decorative elements may be required to distinguish between the products of different centres of production.

Surface Treatment: Complex-intertwining arabesques usually contained within radial panels. Also, more simple registers of vertically placed petals used on the shoulder, or towards the base of the foot pedestal. Blank areas are usually left to separate the various elements of decoration.

Vessel Forms: The form is a handled water jar, or ewer, with a high raised foot, a rounded body and flaring neck, with a simple pointed rim.

Fabric: Very fine, consistently reduced grey, or oxidised orange, and brown fabric, with few visible inclusions and a porous, brittle structure.

Inclusions: None.

Specifications: Light weight, with a compact but porous structure, a light gritty feel and a fine, irregular fracture.

Parallels and Dating: 12th–13th century. The class is well represented in Phases 1 and 2 at Tepe Dasht-i Deh dated to the 12th–13th centuries but is absent from Phase 3 dated to the 14th century (Williamson, 1971d: 183). It is also absent from other 14th century 'Minab incised ware' sites in the Musandam Peninsula (de Cardi, 1975: 17, 64).

Origin: Direct evidence for the production of MEW comes from the discovery of moulds and firing wasters at a number of sites on the Minab plain, the Jiruft plain and the Soghun Valley. Within the Williamson Collection, the bulk of the moulds and some misfired pieces come from the single site of P1. There are also a significant number of misfired pieces from K154 and K130, two separate sites on the Minab plain. The latter lies a few kilometres northwest of the modern town of Minab, and the former has not yet been relocated. In the Stein Collection, most of the moulds come from one site, Shahr-i Daquianus in the upper Halil-Rud, which is probably the same site as P1. There is also a second site, Qalat Sarawan, a few kilometres south of the town of Minab, which is not well represented amongst Stein's finds in the British Museum, but Stein describes as producing a thick scatter of relief decorated pottery (Stein, 1937: 184). Further northwest, in the Soghun Valley, large quantities of MEW emerged from the excavation of Tepe Dasht-i Deh, and included some evidence for local production at the site (Williamson, 1971d: 184). Finally, a kiln was identified at site R67A between Buluk and Fars associated with a mass of moulded ware, and monochrome and polychrome sgraffiato wasters (Prickett, 1986: 1168).

Class Code: MEW.MO

Class Name: Moulded Ewer Moulds

Types: None defined

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 28

Defining Characteristics: Thick-walled open clay moulds with raised or impressed decoration stamped into the wet clay rather than carved. The outsides are left uneven and often have finger impressions. Each mould would have been used to press-mould sections of moulded ewer, which were then luted together with slurry. Various fabrics are represented in connection with the moulds. Interestingly, there appears to be a direct correlation between some of the fabrics associated with the moulds and the various sub-classes of MEW that were defined in the study of the Williamson Collection (Priestman, 2005a: 206-07). These associations seem to be supported by matches in the motifs found on the moulds and those that occur on the surface of the corresponding sub-classes.

Integrity: Consistent and distinctive category of object, but fabrics seem to vary, and are indicative of multiple centres of manufacture.

Surface Treatment: Various intricate moulded motifs.

Vessel Forms: Cylindrical moulds open at both ends, used for press moulding different sections of a vessel.

Fabric: Very fine, consistently reduced grey, or oxidised orange, and brown fabric, with few visible inclusions and a porous, brittle structure.

Inclusions: None.

Specifications: Average weight, with a compact structure, a gritty feel and a fine, irregular fracture.

Parallels and Dating: 12th–13th century. See discussion of MEW above.

Origin: Southeast Iran. See discussion of MEW above.

Fine Slipped/Painted Ware

Class Code: SLIP.R

Class Name: Fine Red-Slipped Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 29

Defining Characteristics: Small, shallow, open dishes and jars, with a fine, well levigated, fully oxidised orange fabric, with small quantities of very fine, sand temper. Interior and upper exterior surfaces of bowls and exterior surfaces of jars are covered by a reddish-purple slip.

COLOUR	
Colour	Reddish-yellow
Core	5YR 6/5
Margin	Same as core
Surface	Same as core

Integrity: The class has consistent characteristics but is likely to have multiple centres of production. Variation is evident in terms of the different types of coarse inclusions, vessel forms, and the colour and quality of the slip.

Vessel Forms: Various small open bowls and dishes, often with simple pointed lips or thickened, everted lips. One of the most characteristic forms has a slight carination low down in the wall and a thin pointed, or rounded, lip. Also, various small jar forms.

Surface Treatment: Interior and upper exterior surfaces of open vessels and exterior surfaces of closed vessels covered in a plain reddish-purple slip.

Fabric: Hard, fine-grained, fully oxidised, orange earthenware, with very few visible inclusions, or with a fine, rather variable, sand temper.

Inclusions: Occasional and varied.

Specifications: Average weight, with a compact structure, a smooth feel and a fine, clean or sub-conchoidal fracture.

Parallels and Dating: 2nd century BC–6th century AD. The class as a whole represents a long-lived tradition and it is only through the identification of forms that it is possible to date the material more closely.

Origin: Southeast Iran.

Class Code: SLIP.B

Class Name: Fine Black-Slipped Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 30

Defining Characteristics: Reduced, coarse, grey fabric, with a patchy, matt-black slip covering all surfaces. Closed and open vessels are represented. The range of forms is wide but the style as a whole is distinctive. Most vessels are medium-sized but large and small vessels are also present.

Integrity: Coherent class.

Surface Treatment: Smaller bowls are usually plain but sometimes have incised wavy bands framed by straight bands below the rim. The same is true for closed forms, though there are decorated examples with raised ridges combined with deeply incised wavy bands, or rilling.

Vessel Forms: Mostly medium- to large-sized jars and bowls.

Fabric: Fine, tight-grained, consistently reduced, light grey, or light yellow-grey, earthenware, with very few visible inclusions and some small voids, that can be seen under low magnification.

INCLUSIONS	
	1
Colour	Voids
Size	<0.5–1mm
Shape	Rounded or elongated
Freq.	*c.* 1%
Sorting	Fair
ID	Voids

Specifications: Average density, with a slightly porous but compact structure, a soapy feel and a fine, irregular fracture.

Parallels and Dating: 3rd–8th centuries. The class occurs in the fortress area of Qasr-i Abu Nasr, which, it has been suggested, can be dated on numismatic evidence to between the 3rd–8th centuries (Whitcomb, 1985a: figs 43; 50: m).

Origin: Southern Iran.

Class Code: SLIP.TB

Class Name: Thick Brown-Slipped Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 31

Defining Characteristics: Thick, slightly glossy opaque reddish-brown (2.5YR 3/1) or black/dusky red (2.5YR 4/4) slip on a light, or occasionally darker orange body. The slip is often degraded and occurs on the interior and exterior, or on the interior and exterior of the rim only. Closed forms and everted rim bowls tend to have deeply incised decoration. In addition, there is a group of distinctive medium-sized bowls with folded rims and slip mostly restricted to the interior of the vessels. Other aspects of slip cover and decoration are form specific.

COLOUR		
Colour	Light brown	Reddish-yellow
Core	7.5YR 6/4	5YR 6/6
Margin	Same as core	Same as core
Surface	5YR 7/6	5YR 7/6

Integrity: Coherent and readily distinguishable from the rest of the red and black-slipped wares.

Surface Treatment: Medium-sized bowls are plain. Smaller bowls and jars can have quite large areas filled with deeply incised bands, wavy lines and grids.

Vessel Forms: Open bowls, with folded rims, club-rim bowls, shallow bowls, beaked-rim bowls and mixed open forms.

Fabric: Fairly hard and compact, fully oxidised, orange, or orange-buff, earthenware, with a slightly rough appearance in the fracture. Under low magnification varied inclusions and frequent voids are visible.

INCLUSIONS				
	1	2	3	4
Colour	Opaque white	Buff/orange	Brick red	Voids
Size	<0.5–1mm	1–3mm	<0.5–1mm	<0.5–1mm
Shape	Sub-rounded	Sub-angular	Sub-angular	Rounded or elongated
Freq.	≤1%	<1%	≤1%	2 - 3%
Sorting	Good	Fair	Good	Fair
ID	Lime?	Hard grit	Stone or grog?	Voids

Specifications: Average density, with a compact structure, a rough but soapy feel and a fine, irregular fracture.

Parallels and Dating: 3rd–8th century. The class occurs in the fortress area of Qasr-i Abu Nasr, which, as has been suggested, can be dated by numismatic evidence to between the 3rd–8th centuries (Whitcomb, 1985a: figs 50: g, i-k, n, p; 52: j, l, o-q).

Origin: Southern Iran.

Class Code: SLIP.PBR

Class Name: Painted Brown-Slipped Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 32

Defining Characteristics: Fairly fine, hard, oxidised orange fabric, with a brown-slipped and heavily burnished surface, painted with black, brown or bichrome decoration. Brown/red slip and black lines, contrast with zones of the bare, light coloured fabric. Sherds often have a soft, soapy feel.

COLOUR	
Colour	Reddish-yellow
Core	5YR 6/5
Margin	Same as core
Surface	Same as core

Integrity: Coherent and distinctive class.

Surface Treatment: Simple broad bands, chevrons, palmettes and lattice type arrangements. Strong contrast between the light colour of the body, the brown/red slip and the black decoration.

Vessel Forms: Shallow open bowls, with sharply everted, rounded lips, and jars with sloping shoulders, and rounded bodies.

Fabric: Hard, fine-grained, fully oxidised, orange earthenware, with very few visible inclusions.

Inclusions: None.

Specifications: Average weight, with a compact structure, a smooth feel and a fine, clean, or sub-conchoidal fracture.

Parallels and Dating: 1st–2nd century? A similar class has been noted at ed-Dur from surface finds collected from Area K during an early survey of the site, perhaps pointing to a dating within the 1st or 2nd centuries (Carl Phillips, pers. comm. 2003).

Origin: Southern Iran?

Class Code: FOPW.1

Class Name: Fine Orange Painted Ware, Group 1

Types: FOP-OR1

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 33

Defining Characteristics: Finely levigated orange fabric which is either plain or covered by a bright reddish-orange slip and black painted decoration. The walls tend to be thin and the surfaces are often, though not always, burnished on the interior and exterior. The class appears to be associated only with a single type, which is a tall, straight-sided beaker with a flaring rim. FOPW.1 can be distinguished from FOPW.2 on the basis of a number of characteristics. The main difference is that the surfaces all have a high burnish, leaving a soft, shiny finish, which can be detected even when the material is degraded. Both interior and exterior surfaces are burnished, although on the exterior the action is vertical, leaving distinctive striations. Decorative motifs are also different. Lozenges are almost completely absent and instead the predominant motif is a hanging volute below the rim bordered by solid bands. Tight wavy bands are also used, either loose, or as frames and panels within fringed borders.

COLOUR	
Colour	Reddish-yellow
Core	7.5YR 6/6
Margin	Same as core
Surface	Same as core

Integrity: Coherent and distinctive class.

Vessel Forms: Tall, straight-sided beaker, with a flaring rim and a flat base. The vessels often have small, perforated handles just below the rim, which were probably used for the attachment of a cord.

Surface Treatment: Exterior surface covered in a fine, red burnished slip, with black painted decoration (see above).

Fabric: Finely levigated, hard, compact earthenware, with a clean, sub-conchoidal fracture and some very small, occasional sandy inclusions. The fabric is predominantly oxidised to orange.

INCLUSIONS	
	1
Colour	Various
Size	≤0.1mm
Shape	Sub-angular
Freq.	Occasional
Sorting	Good
ID	Sandy elements

Specifications: Average density, with a compact structure, a smooth feel and a clean or sub-conchoidal fracture.

Parallels and Dating: 3rd–6th century. The class does not appear to be dated earlier than the 3rd century based on its occurrence in Period 1 of Area F at ed-Dur (Potts, 1998: 209). At Kush, FOPW is concentrated primarily within Phases W-01–E-01, dated to between the 4th–6th centuries (Kennet, 2004: table 3). This evidence contradicts the suggestion by Potts that FOPW went out of circulation by the 4th century (Potts, 1998: 209). The examples from Kush correspond to FOPW.2, whereas FOPW.1 matches the examples recovered from Tepe Yahya Level I (Lamberg-Karlovsky, 1970: 10, fig. 4: i-m). Interestingly, FOPW.1 mostly comes from inland sites closer to the Tepe Yahya area.

Origin: Southeast Iran (Kerman or Hormuzgan). Williamson collected FOPW from 25 different sites, of which 20 come from the Minab, Halil-Rud and Rudan areas in Hormuzgan and Kerman Provinces. Together the sherds from these 20 sites make up 99% of the FOPW assemblage in the Williamson Collection (Priestman, 2005a: 224-25). During Stein's survey of southern Iran, he recorded 11 sites with FOPW, nine of which come from Kerman Province and 2 from Iranian Baluchistan. Stein's sites have been recorded from a combination of published plates (Stein, 1937: pls. XX: 3, 4, 6, 10, 36, 46; XXVII: 20; XXV: 15, 20), site descriptions (Stein, 1937: 141-42), and finds that were examined during a study of the Stein Collection in the British Museum (Priestman, 2004). Four sites were also identified by Sajjadi in the Rudbar area, two of which had already been noted by Stein (Sajjadi, 1989). In the Soghun Valley area, FOPW occurs at Tepe Yahya (Lamberg-Karlovsky, 1970: fig. 4: a, d, e, i-m). On the opposite shores of the Persian Gulf, FOPW has been recovered from Kush (Kennet, 2004: 61-62, fig. 34), ed-Dur (Lecomte, 1993: 200, fig.12: 1-4; Potts, 1998: fig. 2: 8), Mleiha (Bénoist, Mouton and Schiettecatte, 2003: 71, fig. 9: 2-3), Qala'at al-Bahrain (Højlund and Andersen 1997: 213-15, figs 886-896) and from one or possibly two sites on the Musandam Peninsula in northern Oman (de Cardi, 1975, 57-58, fig. 9: 41-62). Together, the evidence suggests that FOPW originated in southeast Iran and that small quantities were traded predominantly within the lower Persian Gulf, although outlying pieces have been noted at Bushehr (Whitehouse and Williamson, 1973: 38, fig. 5: a-c) and Qana' in Yemen (Sedov, 1996: 21-23, fig. 6: 2-7).

Class Code: FOPW.2

Class Name: Fine Orange Painted Ware, Group 2

Types: FOP-OR1

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 34

Defining Characteristics: Finely levigated, dense, orange fabric which is either plain or covered by a bright reddish-orange slip and black painted decoration. The walls tend to be thin and the surfaces are often, though not always, burnished on the interior and exterior. The most common form is a tall, straight-sided beaker with a flaring rim and a flat base or a small globular jar with either a flat base or a

thin flaring foot ring. The main characteristic that distinguishes FOPW.2 from FOPW.1 is the decoration. This consists of solid lozenges framed by straight bands situated above the foot and below the lip of beakers and around the neck of jars. Wavy bands framed by straight bands are also common. Jars tend to have a simpler decorative scheme comprised mostly of thick bands. Some pieces have thin, washy-looking decoration on the interior that Williamson refers to as a "shadow image" produced by the transfer of decoration between vessels stacked within one another during firing (Williamson, 1972: 99). This does not seem the most likely explanation, for although it is difficult to make sense of the internal decoration, the surfaces of the vessels are burnished with the black paint sealed below the burnished layer.

COLOUR		
Colour	Reddish-yellow	Grey
Core	7.5YR 6/6	5Y 6/1
Margin	Same as core	7.5YR 6/6
Surface	Same as core	Same as margin

Integrity: Coherent and distinctive class.

Vessel Forms: The most common form is a tall, straight-sided beaker with a flaring rim and a flat base. The vessels often have small, perforated handles just below the rim, which were probably used for the attachment of a cord. The class also includes a small, globular jar form, with a very slightly thickened and gently everted lip, a long neck, sloping shoulders and a rounded belly. The base is either flat or raised slightly on a thin flaring foot.

Surface Treatment: Exterior surface covered in a fine red burnished slip with black painted decoration (see above).

Fabric: Finely levigated, hard, compact earthenware, with a clean, sub-conchoidal fracture and some very small, occasional, sandy inclusions. The fabric is predominantly oxidised to orange, though sometimes a portion, or the whole of the core, is reduced to light grey.

INCLUSIONS	
	1
Colour	Various
Size	≤0.1mm
Shape	Sub-angular
Freq.	<1–2%
Sorting	Good
ID	Sandy elements

Specifications: Average weight with a compact structure, a smooth feel and a clean, or sub-conchoidal fracture.

Parallels and Dating: 3rd–6th century. Precise parallels for the sub-class are represented in the assemblage from Kush where the material is concentrated primarily within Phases W-01–E-01 dated to between the 4th–6th centuries (Kennet, 2004: table 3). This may be an indication that FOPW.2 is slightly later dated than FOPW.1, though this cannot be confirmed.

Origin: Southeast Iran (Kerman or Hormuzgan). See discussion of FOPW.1 above.

Handmade Coarse Ware

Class Code: CHAM

Class Name: Crude Handmade Ware

Types: CHM-CR2-3, OR1-4, IB1, L1

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 35

Defining Characteristics: Crudely built, handmade vessels, with irregular profiles and plain, uneven surfaces, often with fine, textile impressions on the exterior. A fairly wide range of vessel types are represented within the class, including both closed and open types. Vessels are made from a coarse, low-fired, brittle and crumbly fabric, with numerous coarse inclusions, irregularly fired to buff or orange, sometimes with variation across the surface and through the core.

COLOUR		
Colour	Light brown	Brown
Core	7.5YR 6/4	7.5YR 5/4
Margin	Same as core	7.5YR 5/6 (outer margin)
Surface	Same as core	Same as margin

Integrity: Coherent, well defined and distinctive class, with fairly broad colour variation.

Vessel Forms: Simple, open bowls, jars with gently everted lips, vessels with small cups attached to a long, thick handle, platters, and lids.

Surface Treatment: Exterior surfaces are rough and uneven. Some vessel forms are marked with fine cloth impressions. Particular vessel types are decorated with applied or crude incised decoration, including oblique slashes along handles, rims of lids, or handled vessels (CHM-OR5), or applied and crenulated 'chain ridges' on small flat-bottomed vessels (CHM-OR1). Two vessel types also sometimes have roughly applied brown painted decoration following the rim (CHM-OR2), or the rim and the interior (CHM-OR1).

Fabric: Low-fired, brittle and crumbly fabric, with abundant, coarse inclusions. Inclusions are mostly of a single variety: crushed angular, and platy red, or reddish-brown, stony grits. The fabric is irregularly fired to orange-buff throughout, or strong orange, sometimes turning to grey in the core and interior margin.

INCLUSIONS	
	1
Colour	Brown/red
Size	<0.1–2mm
Shape	Angular
Freq.	7%
Sorting	Poor
ID	Crushed stony grit

Specifications: Average density, with a brittle, granular structure, a harsh feel and a hackly, laminar fracture.

Parallels and Dating: Not known. The class as represented at Siraf has strong affinities to CHAM.1-3 in the Williamson Collection, though it is not certain it is the same class (Priestman, 2005a: 194-95, pls. 32-35). Parallels can also be drawn with proto-Julfar ware that occurs at Kush through Periods III and IV dated to between the 8th–11th centuries (Kennet, 2004: 53), though it is unclear if all groups are directly related.

Origin: Southern Iran?

Class Code: CHAM.N-ID

Class Name: Non-Identified Crude Handmade Ware

Types: None

Clay: Earthenware **Production**: Handmade **Illustration**: None

Defining Characteristics: Crudely built handmade vessels with irregular profiles and plain, uneven surfaces. The class displays extensive variation in fabric and vessel form. Evidently there are a range of distinct classes loosely bound by a general set of traits. Vessels are all made from a coarse, low-fired, brittle and crumbly fabric, with numerous coarse inclusions.

Integrity: Extensive variation in fabric, firing and vessel forms indicative of a range of distinct classes.

Colour: Various.

Vessel Forms: Quite a wide range of different vessel forms including jars with simple everted lips, bowls, and platters. The range of vessel forms is similar to those represented in the more coherent CHAM class.

Surface Treatment: Mostly plain. Some surface decoration occurs in the form of crude incisions on handles and applied, and impressed, chain ridges around the body.

Fabric: Low-fired, brittle and crumbly fabric, generally with abundant coarse inclusions. The fabric is often irregularly fired to orange, buff or cream.

Inclusions: Various.

Specifications: Various.

Parallels and Dating: No known. The material is mixed and diverse, potentially dating to different periods, through general similarities with CHAM and proto-Julfar ware suggest that there may be a widespread tradition of plain, crude, handmade vessels circulating within the Persian Gulf region during a single unified chronological horizon.

Origin: Southern Iran.

Class Code: BSTOP

Class Name: Brittle Stone-Tempered Painted Ware

Types: None defined

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 42

Defining Characteristics: Hard and thin walled, clinky fired, brittle, brown fabric, with abundant coarse angular, stone, grit inclusions and, in some cases, fragments of lime. Vessels are handmade and the surfaces are murky orange, with patches of fire clouding. Decoration consists of red bands and washes, overlain with black lines.

COLOUR		
Colour	Yellowish-red, light reddish-brown	Dark grey, reddish-yellow
Core	5YR 5/6	5YR 4/1
Margin	Same as core	Same as core
Surface	5YR 6/3-4	7.5YR 6.5/4

Integrity: Very coherent and distinctive class.

Surface Treatment: Bands, or large areas (often the entire vessel exterior), covered in washes of red, iron-based pigment, overlain with bands of black, often framing wavy bands or short chevrons.

Vessel Forms: Jars with rounded bodies, flaring mouths, and pointed, or thickened lips, some with simple, rolled rims and flat bases, or recessed foot wells.

Fabric: Hard, brittle, fawn-brown earthenware, with abundant, graded, angular, grit inclusions, and in some cases fragments of lime.

INCLUSIONS		
	1	2
Colour	2.5YR 5/1-3	8/N or 10YR 8/2
Size	0.25–3mm	0.5–3mm
Shape	Angular	Sub-rounded
Freq.	5–15%	0–2%
Sorting	Fair	Fair
ID	Stone grits	Lime

Specifications: High to average density, with a granular structure, a harsh feel and a hackly fracture.

Parallels and Dating: 3rd–6th century? The class is equivalent to PAW.BST in the Williamson Collection (Priestman, 2005a: 222). Survey in the Minab and Rudan suggested that BSTOP may be associated with FOPW of the 3rd–6th centuries at PK16 in the Rudan area, although the presence of a few 11th–13th century glazed ware sherds at the site mean that it is not possible to rule out a later date for the class (Priestman, Kennet, Khosrowzadeh and Aali, 2005).

Origin: Southeast Iran.

Class Code: JULFAR

Class Name: Plain Julfar Ware

Types: JUL-CR1.2, CR1.6, CR6.1, CR6.2, CR10

Clay: Earthenware **Production**: Mostly handmade **Illustration**: Plates 36-37

Defining Characteristics: Handmade, or slow-turned, jars and round-bottomed cooking pots made from a coarse orange/red, or grey, fabric, with a rough, hackly fracture, containing frequent and distinctive small sub-angular red, or grey, platelets. The surfaces are either grey, or weak orange, or a combination of the two. Exterior surfaces are plain apart from a horizontal rib in Types JUL-CR6.2 and JUL-CR1.2.

COLOUR		
Colour	Red/weak red/light red	Grey/light brownish-grey
Core	10R 5/8	10YR 6/1
Margin	10R 5/4	10YR 6/2 (outer margin)
Surface	10R 6/6	Same as margin

Integrity: Some variation in firing colour and in the presence, or absence, of white lime inclusions. Variation often appears to be type-specific. JUL-CR1.6 in particular stands out as consistently having a reduced, grey fabric and being wheel-thrown, rather than slow turned, or handmade.

Vessel Forms: Mostly medium-sized, round-bottomed cooking pots, with slightly closed mouths, horizontal lug handles, attached towards the top or the bottom of the sides, and gently thickened rims. In addition, there are some large jars, with thick, everted, flange rims, together with a selection of one-off types.

Surface Treatment: Generally plain but with some minimal decoration that is type-specific. JUL-CR6.2 and JUL-CR1.2 have a continuous, raised band incorporating projecting handles a short distance below the rim. JUL-CR1.6 has horizontal lug handles, low down toward the base, together with a slight, raised and flattened, turned band, immediately below a slightly squared rim. JUL-CR10 vessels are plain.

Fabric: Brittle, grainy earthenware, fired to brick-red or dark grey, with frequent, angular, badly sorted, opaque red, or grey, platelets. Some pieces are also flecked with small spots of lime, which can be frequent. Fabric colour tends to vary through the core and over the vessel surface.

INCLUSIONS		
	1	2
Colour	Red or grey	White
Size	<0.1–4mm	<0.1–2mm
Shape	Angular platelets	Sub-rounded
Freq.	7%	0–7%
Sorting	Very poor	Fair
ID	Stone platelets	Lime flecks

Specifications: Light to average weight, with a compact, granular structure, a gritty feel and an irregular, laminar fracture.

Parallels and Dating: 14th–20th century. Julfar ware is a long-lived tradition that first appears as a significant element in the Kush sequence during Phase E-08 in the late 11th–early 12th century and continues in production up to the mid-20th century. JULFAR from Siraf is equivalent to JULFAR.3 and JULFAR.4 from the Kush/al-Mataf study (Kennet, 2004: 53) and JUL in the Williamson Collection (Priestman, 2005a: 226-27, pl. 59). None of the material appears to belong to the earlier groups that are better-represented towards the end of the sequence at Kush. The main type represented here, JUL-CR1.2 is equivalent to CP1.2, which becomes common at al-Mataf in Phase II, in the 14th century and begins to decline by Phase IV, in the 16th century (Kennet, 2004: 53-55, tables 21-23). The same type has been recorded during earlier work at Julfar (Hansman, 1985: fig. 14: a-d) and at Qala'at al-Bahrain mostly outside the fortress (Frifelt, 2001: 87, figs 147: a; 148). JUL-CR6.2 represents a minor variant of JUL-CR1.2 and the same parallels apply. Large flange-rimmed jars, often with lime inclusions, are similar to Kennet's type CP7.1 (Kennet, 2004: fig. 24) and a version of Julfar ware recorded in the Williamson Collection (JUL.RC form JRC: 01). Neither occur in the sequence at al-Mataf, suggesting that they are later in date and thus dated to the mid-17th century and later, though superficially the firing and fabric appears similar to the rest of the JULFAR group. Type JUL-CR1.6 remains anomalous in being wheel-thrown, having a more consistently grey fabric and a form that does not appear to be represented at Kush or al-Mataf. This type may derive from a different source, however the fabric and general characteristic of the cooking pot are consistent with the Julfar ware tradition.

Origin: Julfar, Ras al-Khaimah, UAE.

Class Code: JULFAR.PB

Class Name: Purple and Black Julfar Ware

Types: JUL-CR1.1, CR8

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 38

Defining Characteristics: Dark-grey, handmade or slow-turned Julfar ware cooking pots with thin, brittle walls, a rounded bottom and a slightly thickened, or beaded, closed rim. Rims are mostly decorated with a painted band of purple, and on one type, short, deep incisions along the rim. Some rims are also plain. Vessels often have fine, pointed handles attached just below the rim, a feature that is particular to this sub-class.

COLOUR		
Colour	Dark reddish-grey	Red/dark reddish-grey
Core	2.5YR 4/1	2.5YR 4/6 (inner half)
Margin	Same as core	2.5YR 4/1 (outer margin)
Surface	Same as core	Same as margin

Integrity: Typically, JULFAR.PB is fired to a dark grey and has a purple painted band around the rim. The material is similar to JULFAR but can be distinguished on the basis of vessel type, the presence of painted decoration, consistent dark grey reduction, thinner walls, smaller, less frequent coarse inclusions, and more advanced sintering giving the material a noticeable 'clinky' quality. A small number of sherds might also be included within the class that are fired to a strong orange, or buff, and sometimes do not have painted, purple decoration, but share the same vessel types (JUL-CR1.1 and JUL-

CR8) and fine 'clinky' quality. In a larger assemblage, these groups might be assigned to a separate sub-class, particularly given the consistency displayed by JULFAR.PB.

Vessel Forms: Medium-sized, round-bottomed cooking pots, with slightly closed mouths and externally thickened, beaded rims (JUL-CR8), or simple, thickened rims, with a rounded lip (JUL-CR1.1). Both types have fine, pointed handles attached at the rim, or slightly below.

Surface Treatment: Most examples (see exceptions above) have a painted band of reddish-purple along the rim. Most JUL-CR8 vessels also have regularly spaced, short, deep, oblique slashes along the rim. JUL-CR1.1 vessels are generally otherwise plain, though non-painted examples can have thin, incised, wavy bands below the rim.

Fabric: Hard, brittle earthenware, fired to dark grey, sometimes turning to orange towards the inner half of the core. The fabric contains frequent, angular, badly sorted, opaque grey platelets. Some pieces are also flecked with small spots of lime.

INCLUSIONS		
	1	2
Colour	Grey	White
Size	<0.1–0.5mm	<0.1–2mm
Shape	Angular platelets	Sub-rounded
Freq.	3%	Occasional
Sorting	Fair	Fair
ID	Stone platelets	Lime flecks

Specifications: Light to average weight, with a compact, granular structure, a gritty feel and an irregular, laminar fracture.

Parallels and Dating: 16th–17th century. This is the same as JUL.PB in the Williamson Collection (Priestman, 2005a: 228, pl. 58) and is equivalent to JULFAR.2 from al-Mataf (Kennet, 2004: 53-55). One of the types represented, JUL-CR1.1 (= CP1.1), begins to replace CP1.2 as the dominant Julfar ware cooking pot type from Phase IV at al-Mataf, in the 16th century. The type continues to increase in frequency through the rest of the sequence up to the abandonment of al-Mataf, in the earlier 17th century, and may continue in circulation some time beyond this date. The same type has also been recorded during earlier work at Julfar (Hansman, 1985: fig. 14: g-h, j). The second type (JUL-CR8), that is equally well represented in the JULFAR.PB assemblage from Siraf, is curiously omitted from Kennet's al-Mataf typology, though it is included within the earlier publication of Julfar (Hansman, 1985: fig. 14: i) and is present at Qala'at al-Bahrain (Frifelt, 2001: fig. 150: a-b).

Origin: Julfar, Ras al-Khaimah, UAE.

Class Code: JULFAR.RW

Class Name: Red and White Julfar Ware

Type(s): JUL-CR9, OR1.1, OR1.4

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 39

Defining Characteristics: Handmade or slow-turned, spouted jars, and bowls, made from a coarse, orange fabric, with a rough, hackly fracture, containing frequent and distinctive small, sub-angular red platelets and some flecks of lime. The sub-class is easy to distinguish from other types of Julfar ware as the surfaces are washed all over with thin white slip and painted with stripes of red. There are also subtle differences in the quality of the fabric, which tends to be fired to a darker red and to have a particularly brittle, granular quality.

COLOUR	
Colour	Red
Core	2.5YR 5/8
Margin	Same as core
Surface	Same as core

Integrity: Coherent and distinctive.

Vessel Forms: Almost all sherds come from a single distinctive type (JUL-CR9) of bridge-spout jug with a flat base, a piriform body, a slightly flared neck, with a thickened lip, a long strap handle and a straight, bridge spout. Where the bridge of the spout joins the neck, there is a pronounced horizontal rib, which forms the upper terminal for the strap handle on the opposing side. There are also examples of JULFAR.RW decoration associated with a low, closed bowl with a thickened rim and slightly squared lip.

Surface Treatment: Exterior surfaces of jars and all surfaces of bowls are covered in a thin white wash over-painted in simple lines of reddish-purple; placed either vertically or horizontally depending on the particular portion of the vessel.

Fabric: Hard, brittle earthenware, fired to a strong brick-red, with frequent, angular, badly sorted, opaque red platelets and occasional flecks of lime. The fabric colour can vary through the core, turning darker either toward the interior or exterior margin.

INCLUSIONS		
	1	2
Colour	Red	White
Size	<0.1–2mm	<0.1–3mm
Shape	Angular platelets	Sub-rounded
Freq.	3–5%	Occasional
Sorting	Poor	Fair
ID	Stone platelets	Lime flecks

Specifications: Light to average weight, with a compact, granular structure, a gritty feel and an irregular, laminar fracture.

Parallels and Dating: Late 15th–17th century. This is the same as JUL.RW in the Williamson Collection (Priestman, 2005a: 229, pl. 56) and is equivalent to JULFAR.1 from al-Mataf, where it occurs throughout the sequence from Phases II–REC, dated to the 14th–17th centuries, but with a dramatic increase in circulation evident, slightly earlier than JULFAR.PB in Phase III, dated to the late 15th–early 16th century (Kennet, 2004: 53-55, table 7). The main JULFAR.RW type (JUL-CR9) is equivalent to types J2.1 and J2.3 (which mostly appear to be the same type) from al-Mataf (Kennet, 2004: fig. 22). The type has also been identified during earlier work at Julfar (Hansman, 1985: 64, fig. 17: h) and at Qala'at al-Bahrain (Frifelt, 2001: 93-4, fig. 160: a-b). The bowl type is equivalent to type B1.1 from al-Mataf (Kennet, 2004: fig. 22: 'Type B1.1') and has also been recorded by Hansman (1985: 62, fig. 16: c, e).

Origin: Julfar, Ras al-Khaimah, UAE.

Class Code: HMPW-1

Class Name: Handmade Painted Ware, Group 1

Types: None

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 40

Defining Characteristics: Closed, flat-bottomed, handmade, vessels, with a coarse, low-fired, friable, cream coloured fabric, with a blocky structure, and varied coarse inclusions. Exterior surfaces are decorated with distinctive, very detailed, relatively fine-lined, geometric decoration, generally containing areas of crosshatch lattice and rows of simple volutes.

COLOUR	
Colour	Pale yellow
Core	5Y 8/2
Margin	Same as core
Surface	Same as core

Integrity: The coarse inclusions seem extremely varied, yet the general quality of firing and decorative scheme appears consistent and readily distinguishable from other categories of HMPW represented in inland Fars (see Priestman, 2005a: 219-23; Whitcomb, 1991).

Vessel Forms: Medium-sized, closed vessels, with wide, low bodies, simple flat bases and round-section, or flattened strap, handles attached to the necks and shoulders. Some handles have a projecting point applied to the handle. No complete profiles are preserved but fragments from the neck portion indicate that at least some of the vessels, if not all, had tall, straight necks.

Surface Treatment: Exterior surfaces are decorated all over with very complex, relatively fine-lined, dark purple, painted designs, generally including zones filled with crosshatch lattice, or a solid fill. Open areas are filled with other decorative elements, often rows of simple volutes joined to a straight line.

Fabric: Soft, crumbly, cream coloured fabric, with a blocky structure and numerous coarse inclusions, the nature of which varies extensively. Common elements include blocks of light orange, or pink sedimentary stone, some darker mineral inclusions and in some pieces, rolled grains of quartz.

INCLUSIONS			
	1	2	3
Colour	Light orange/ pink	Dark grey	Opaque white
Size	<0.1–2mm	≤1mm	≤1mm
Shape	Sub-angular	Rounded	Well rounded
Freq.	3%	Occasional	0%–Occasional
Sorting	Poor	Good	Good
ID	Sedimentary stone	Stone grit	Quartz

Specifications: Low density, with a soft, friable structure, a harsh feel and hackly, laminar fracture.

Parallels and Dating: 11th–13th century. HMPW-1 is well represented within the assemblage from Siraf and appears to be a local category to this area. The class is equivalent to PAW.SCC in the Williamson Collection, which was also collected from the area of Siraf (Priestman, 2005a: 220-21). The class is part of a widespread tradition of crude, pseudo-prehistoric, handmade, painted wares; belonging roughly to the period of the 11th–13th century, which have been particularly well documented in the Marv-Dasht area of Fars (Whitcomb, 1991), but also occur across other areas of Iran and much of the Near East, from Egypt to Afghanistan (Johns, 1998). Pieces with a very similar decorative scheme to HMPW-1 have been recovered from Qala'at al-Bahrain, where they are believed to derive from a source in Syria (Frifelt, 2001: 92-3, figs 154-56). This identification seems unlikely, particularly given the widespread adoption of the tradition and its broad geographical occurrence. HMPW-1 was most likely manufactured locally within the area of Siraf, with pieces from Qala'at al-Bahrain derived from the same source.

Origin: Southern Iran, Siraf area?

Class Code: HMPW-2

Class Name: Handmade Painted Ware, Group 2

Types: CHM-CR1

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 41

Defining Characteristics: Crude, handmade vessels, made from a coarse, low-fired, friable fabric, with a blocky structure and varied, coarse inclusions. Vessels are mostly closed, with saggy profiles. Some have round-, or flat-section strap handles, with applied, projecting points. Exterior surfaces are decorated with simple, thick-lined designs; often chevrons painted in dark purple, or purple combined with white.

COLOUR	
Colour	Very pale brown
Core	10YR 8/3
Margin	10YR 7/4
Surface	Same as margin

Integrity: The general decorative scheme is relatively consistent but there is extensive variation in the nature of coarse inclusions and firing colour. Some pieces may have the same fabric as HMPW-1 but the decoration is different. Others are clearly not the same, including pieces fired to strong orange, turning grey, or brown, in the core. With a larger sample it may be possible to further sub-divide the class into more coherent categories.

Vessel Forms: Mostly closed vessels, including tall, straight-necked jars and vessels with wide, gently everted lips and saggy profiles. Some, or possibly all, vessels have round-, or flat-section strap handles applied to the neck and shoulder, with pointed projecting thumb-stops applied to the top. An example of a small, square-legged incense burner from Siraf also belongs within the class.

Surface Treatment: Exterior surfaces covered all over with simple, broad-lined geometric designs, consisting mostly of multiple chevrons painted in dark purple or alternating lines of purple and white. Bichrome painted decoration occurs only on pieces with red coloured bodies.

Fabric: Soft, crumbly, cream, or orange, coloured fabric, with a blocky structure and numerous coarse inclusions, the nature of which varies extensively across the sample.

Inclusions: Various.

Specifications: Low density, with a soft, friable structure, a harsh feel and hackly, laminar fracture.

Parallels and Dating: 11th–13th century. HMPW-2 is part of a widespread tradition of crude, pseudo-prehistoric, handmade, painted wares, belonging roughly to the period of the 11th–13th century, which have been particularly well documented in the Marv-Dasht area of Fars (Whitcomb, 1991), but also occur across other areas of Iran and much of the Near East from Egypt to Afghanistan (Johns, 1998). No specific parallels are known for HMPW-2.

Origin: Southern Iran, Siraf area?

Class Code: HMPW-CC

Class Name: Coarse Cream-Bodied Handmade Painted Ware

Types: None defined

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 43

Defining Characteristics: Hard fired, coarse, grit-tempered, handmade, or slow-turned, painted ware. Vessels are small- and medium-sized and include bowls, jars, and handled forms. Decoration is bold, covers much of the vessel's surface and is rendered in black, or red, iron pigment.

COLOUR			
Colour	Pale yellow	Reddish-yellow, pinkish-yellow	Greyish-brown, light grey
Core	2.5Y 8/1	5YR 6/6	10YR 5.5/2
Margin	Same as core	5YR 6/7	Same as core
Surface	Same as core	7.5YR 7/5	10R 7/2

Integrity: Coherent and distinctive class.

Surface Treatment: Fast, broad strokes filling large areas of the vessel, mostly exteriors, though sometimes interiors, on bowls. Loose lattice is the most common motif. Less structured elements are also present.

Vessel Forms: Simple, open bowls, handled jars and jugs, and softly carinated beakers.

Fabric: Hard, compact earthenware, with advanced sintering, though it still feels soft and soapy. The fabric has variable levels of well sorted, homogenous black, or dark reddish-black, grits (probably the same material but fired to different colours). The body is generally fired to a light creamy orange, or grey/green, mainly within a consistent oxidised range.

INCLUSIONS	
	1
Colour	5YR 4/1 or 10R 5/6
Size	<0.5–2mm
Shape	Sub-angular
Freq.	<1–5%
Sorting	Fair
ID	Red or black grit

Specifications: Average density, with a compact, granular structure, a slightly rough, soapy feel and an irregular fracture.

Parallels and Dating: 11th–13th century. Part of the widespread, pseudo-prehistoric, handmade, painted ware tradition, that can be dated within the range of the 11th–13th centuries (Whitcomb, 1991: 103).

Origin: Fars Province? Southern Iran.

Class Code: HMPW-ORG

Class Name: Organic-Tempered Handmade Painted Ware

Types: None defined

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 44

Defining Characteristics: Soft, chalky-textured fabric, with occasional solid inclusions and numerous fibrous voids left by burnt out organic material. The pottery is painted with black pigment and is very similar to HMPW-1 but has less grit and an organic temper. The pottery appears to be handmade or slow-turned.

COLOUR		
Colour	Pale yellow	Weak red, pale yellow
Core	5Y 7.5/2	2.5YR 5.5/4
Margin	Same as core	Same as core
Surface	Same as core	2.5Y 8/3

Integrity: Coherent and distinctive class.

Surface Treatment: Fairly complex motifs including pseudo-calligraphic elements.

Vessel Forms: Simple, open bowls or rounded, closed forms.

Fabric: Soft and chalky, or hard and porous, cream, or orange, earthenware, with occasional coarse inclusions and frequent elongated voids left by burnt out organic temper.

INCLUSIONS		
	1	2
Colour	2.5/N	Voids
Size	0.25–1mm	0.5–6mm
Shape	Sub-rounded	Elongated
Freq.	0–1%	7–15%
Sorting	Good	Poor
ID	Black stone grits	Organic temper

Specifications: Average weight, with a loose structure, a soapy feel and a fine, irregular fracture.

Parallels and Dating: 11th–13th century. Part of the widespread, pseudo-prehistoric, handmade, painted ware tradition that can be dated within the range of the 11th–13th centuries (Whitcomb, 1991: 103).

Origin: Fars Province? Southern Iran.

Class Code: HMPW-RB

Class Name: Red on Brown Handmade Painted Ware

Types: None defined

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 45

Defining Characteristics: Uneven, thin-walled, reddish-brown, handmade pottery with heavily burnished surfaces and thin lines of red decoration. The decoration is comprised of well spaced, loosely structured, meandering lines.

COLOUR	
Colour	Red
Core	2.5YR 5/6
Margin	Same as core
Surface	2.5YR 6/6

Integrity: Coherent class.

Surface Treatment: Medium to thin, iron red pigment, lines arranged in meandering tendril-like configurations. Some vessels have more structured elements, like dots or wavy lines. Decorated on the exterior only but burnished on the interior and exterior.

Vessel Forms: Closed, bell-shaped jars and small, open bowls.

Fabric: Coarse, hard, compact and brittle, deep reddish-brown earthenware. The broken section has a distinctive ‘blocky’ fracture that makes the fabric appear as though it has a coarse grit temper, although none is actually visible.

INCLUSIONS		
	1	2
Colour	2.5YR 5/4	10R 3/1
Size	<0.5–1mm	≤0.5mm
Shape	Angular	Sub-angular
Freq.	≤3%	≤3%
Sorting	Fair	Good
ID	Pink-red grits	Black stone grit

Specifications: Average density, with a compact, granular structure, a rough feel and an irregular fracture.

Parallels and Dating: 11th–13th century. Part of the widespread, pseudo-prehistoric, handmade, painted ware tradition that can be dated within the range of the 11th–13th centuries (Whitcomb, 1991: 103).

Origin: Fars Province? Southern Iran.

Class Code: HMPW-SA

Class Name: Fine Sandy Handmade Painted Ware

Types: None defined

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 46

Defining Characteristics: Hard, orange fabric, with a very fine, sandy texture and thin, degraded, dark red, or maroon, coloured decoration on a plain, buff surface. Vessels appear to be handmade or slow turned.

COLOUR	
Colour	Light brown, pink
Core	7.5YR 6/4
Margin	Same as core
Surface	7.5YR 7/3

Integrity: Coherent class.

Surface Treatment: Broad bands and in-filled areas, with wavy lines, dots and other devices between.

Vessel Forms: Medium-sized jars.

Fabric: Hard, slightly flaky, buff-orange earthenware, with a sandy texture and no visible inclusions.

Specifications: Average weight, with a compact, granular structure, a gritty feel and a clean fracture.

Parallels and Dating: 11th–13th century. Part of the widespread, pseudo-prehistoric, handmade, painted ware tradition that can be dated within the range of the 11th–13th centuries (Whitcomb, 1991: 103).

Origin: Fars Province? Southern Iran.

Class Code: INC.M

Class Name: Minab Incised Ware

Types: None

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 47

Defining Characteristics: Closed, straight-necked jars, with a fine, compact, buff coloured fabric; coated over the exterior and interior with lighter, creamy-buff coloured slip. Exterior surfaces are decorated with distinctive intricate impressed marks, forming panels that have been compared to textile designs (Frifelt, 2001: 96).

COLOUR	
Colour	Light brown
Core	7.5YR 6/4
Margin	Same as core
Surface	Same as core

Integrity: Coherent and distinctive class.

Vessel Forms: Vessels appear to be a single type of jar, with a globular body, and tall, straight neck. The body portion is handmade using the hammer and anvil technique (de Cardi, 1975: 64), while the neck appears to have been thrown separately and attached to the body.

Surface Treatment: Exterior surfaces are covered by registers formed from neat, closely spaced, impression marks, produced using a range of different pointed stamps. Very similar techniques of surface decoration can be seen today amongst the Shiu potters of Lima in the Musandam region of Northern Oman, where a wide range of small, wooden implements are used to produce impression marks on vessels when they are leather hard (Richardson and Dorr, 2003: 74).

Fabric: Hard, compact, consistent orange, or buff, coloured fabric, with a fine, pitted, grainy structure, produced by numerous very small, finely sorted, sandy inclusions and frequent fine voids.

INCLUSIONS		
	1	2
Colour	White/grey	Voids
Size	≤0.1mm	≤0.2mm
Shape	Sub-rounded	Rounded
Freq.	5%	7%
Sorting	Good	Fair
ID	Crystalline grits	Air pockets

Specifications: Medium density, with a compact structure, a gritty feel and a fine, irregular fracture.

Parallels and Dating: 14th–15th century. This is the same as INC.M recovered during the 2005 Hormuzgan survey (Priestman, Kennet, Khosrowzadeh, and Aali, 2005). The class was first recorded by

Williamson (de Cardi, 1975: 27). He noted its absence from Phases 1 and 2 at Tepe Dasht-i Deh dated to the 12th–13th centuries, and its first appearance in Phase 3, dated to the 14th century (Williamson, 1971e: 183). Similar pottery has been recovered from 14 sites on the Musandam peninsula (de Cardi, 1975: 27, 64, 66, fig. 10) and from Qala'at al-Bahrain, largely from outside the fortress (Frifelt, 2001: 96-99, figs 165-167; 171).

Origin: Hormuzgan Province, Southern Iran.

Class Code: HAGRIT

Class Name: Hard Grit-Tempered Cream/Pink Coloured Ware

Types: PCW-CR6

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 48

Defining Characteristics: Medium-sized jars of a single type, with gently sloping shoulders, a squared and recessed exterior lip, and a slightly recessed interior bevel. The vessels are fired to cream, or pink, and have a very distinctive fabric containing sub-angular, black grits and numerous rounded grains of quartz. Exterior surfaces are smooth and are covered by a 'self-slip' coating. Interior surfaces are fairly irregular. This, combined with fine, horizontal striations in the surface, indicates that the vessels were manufactured by hand on a slow turning device.

COLOUR		
Colour	Light yellowish-brown/very pale brown	Reddish-yellow/light red
Core	10YR 6/4	7.5YR 6/6
Margin	10YR 7/4	2.5YR 6/6 (outer margin)
Surface	2.5Y 8/3	Same as margin

Integrity: Only a small number of sherds belonging to this class are represented within the assemblage from Siraf, but all are consistent and distinctive.

Vessel Forms: Only one vessel type represented within the class. This is a medium-sized jar with a fairly short neck, gently sloping shoulders. The distinctive rim has a squared and recessed exterior lip and a slightly recessed bevel on the interior.

Surface Treatment: Exterior surfaces are 'self-slipped' and appear cream coloured, or pink.

Fabric: Hard, compact fabric, fired to cream, or pink, on the surface, and turning to darker buff in the core. The fabric contains a consistent range of frequent, coarse inclusions, including sub-angular, black stone and rounded, opaque white, or grey, quartz grits.

INCLUSIONS		
	1	2
Colour	Opaque white	Black
Size	<0.1–1mm	≤0.5mm
Shape	Rounded	Sub-angular
Freq.	3–5%	3–5%
Sorting	Very good	Very good
ID	Quartz	Stone grit

Specifications: Average density, with a compact structure, a rough feel and a fine, irregular fracture.

Parallels and Dating: 12th–15th century. There are no known parallels for this class. Most of the material from Siraf comes from Site E and from contexts associated with other relatively late pottery such as JULFAR, LIME, MGPAINT-1, etc. This material all relates to the later occupation of the city after the main period of the decline, which occurred during the late 10th–early 11th century.

Origin: Southern Iran?

Class Code: INCIMP

Class Name: Incised and Impressed Ware

Types: None defined

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 51

Defining Characteristics: Thick-walled bowls, with simple profiles, flat bases, and a thickening of the walls at the side/base junction. The interior surfaces are covered by clean, deeply impressed dots and incised lines. The fabric is fine-grained, light orange-buff coloured, with occasional pronounced reddening of the core. It is fairly hard and heavy, with no visible inclusions but a slightly pitted surface and occasional large construction voids.

COLOUR		
Colour	Pale yellow	Light brown/very pale brown
Core	2.5Y 8/3	7.5YR 6/4
Margin	Same as core	Same as core
Surface	Same as core	10YR 7/4

Integrity: Highly distinctive and stylistically unified class.

Surface Treatment: Deeply impressed dots are often placed in lines or scattered within panels delineated by incised lines. Lines can be used to frame panels or as free flowing elements. Decoration tends to cover most of the interior surface.

Vessel Forms: Simple, open bowls, with rounded or everted rims, and a flat base.

Fabric: Fine-grained, dense, compact, light cream to orange earthenware, with no visible inclusions.

Specifications: High density, with a compact structure, a rough feel and a fine, irregular fracture.

Parallels and Dating: 17th–19th century. Survey in the Minab area produced a single INCIMP sherd from a site dominated by pottery of the 17th–20th centuries, but also containing some finds extending back to the 12th–13th centuries (Priestman, Kennet, Khosrowzadeh and Aali, 2005). The evidence is therefore by no means conclusive, although the suggestion is that INCIMP may be a relatively modern class.

Origin: Most of the INCIMP in the Williamson Collection comes from the Minab area and all from the eastern regions of the survey, indicating that it is most likely to be a local product to this area.

Non-Identified Coarse Ware

Class Code: CW.N-ID

Class Name: Non-Identified Coarse Wares

Types: None

Clay: Earthenware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: Mixed, wheel-made, unglazed pottery that cannot be assigned to any of the other classes of pottery. This class does not match any of the coarse wares known from the Williamson Collection, Siraf, or other studies undertaken of Sasanian and Islamic pottery circulating within the Persian Gulf. Most of the material does appear to originate from somewhere within the Persian Gulf region, rather than being imported from elsewhere.

Integrity: Diverse and extremely mixed, often just one-off examples.

Parallels and Dating: Not known.

Origin: Persian Gulf?

South Asian Coarse Ware

Class Code: IRPW

Class Name: Indian Red Polished Ware

Types: IND-CR1, B1

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 52

Defining Characteristics: Very hard, finely levigated fabric, with a clean, sub-conchoidal fracture, fired to strong reddish-orange and sometimes turning grey in the core. Exterior surfaces are covered with a bright orange slip, which is evenly burnished but can have a slightly streaky appearance. All sherds belong to a single type with a sharply everted, squared, flange rim, with carefully tooled, incised depressions along the outer face of the rim, the interior flange/neck interface, and sometimes mid-way down the shoulder.

COLOUR		
Colour	Red	Reddish-grey/weak red/red
Core	2.5YR 5.5/6	2.5YR 5/1
Margin	Same as core	2.5YR 5/2
Surface	Same as core	2.5YR 5.5/6

Integrity: Clearly defined, readily recognisable and with a strong, internal consistency.

Vessel Forms: Small jars with rounded globular bodies, sharply everted flange rims with squared outer faces, and raised bases. The bases are carefully turned, with concave recesses in the underside that have raised and flattened central bosses.

Surface Treatment: Exterior surfaces are covered by a bright orange, evenly burnished slip. Also tooled bands around the shoulder, outer rim-face and interior flange/neck interface.

Fabric: Very hard, finely levigated earthenware, with no visible inclusions and a clean, or semi-conchoidal fracture. The majority of pieces are thoroughly oxidised to a strong orange, though some turn to grey in the core, or over particular zones of the body, especially the side and base.

Inclusions: None.

Specifications: Average to dense in weight, with a compact structure, a soft feel and a clean, or semi-conchoidal fracture.

Parallels and Dating: 1st–8th century. Williamson first noted IRPW in the Persian Gulf at Bushehr, where he attributed the material to the 1st–3rd century, based on a number of parallels drawn from Indian contexts (Williamson, 1972: 100 'type 2', fig. 5; Whitehouse and Williamson, 1973: 38-9, fig. 5: d-f). Since Williamson's initial recognition of IRPW in Near Eastern contexts, further finds have appeared in excavations at Sohar in Oman, Qana' in Yemen and Kush in the UAE (Kervran, 1996: 38-43; Sedov, 1996: fig. 6: 8-9; Kennet, 2004: 65-66), indicating that it circulated not only within the Persian Gulf, but also right around the Arabian Peninsula. At Kush, 39 sherds of IRPW were recovered from the stratified sequence. These were distributed between Phases E-01–E-04 dated to between the 5th–8th centuries, although the vast majority of pieces come from Phases E-03–E-04 suggesting that it was most common during the 7th–8th centuries (Kennet, 2004: table 3). Besides pushing the terminal date for the class forwards, this evidence may be an indication that other IRPW finds from within the Persian Gulf and Western Indian Ocean are also later dated than has previously been supposed (Kennet, 2004: 65-6).

Origin: Gujarat Province, Western India.

Class Code: IRPW.RC

Class Name: Indian Red Polished Ware Related Class

Types: None

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 53

Defining Characteristics: Similar to IRPW in having a finely levigated fabric, with a sub-conchoidal fracture, and evenly burnished exterior surfaces, but the fabric is fired to a dirty brownish-orange, or grey, and appears to be unslipped, or slipped with a non-coloured coating. One sherd, which is consistently reduced to grey, has painted bands of black, red and white.

COLOUR		
Colour	Yellowish-red	Brown
Core	5YR 5/6	7.5YR 5/2
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: A small and disparate selection of pieces held together by some unifying characteristics, such as the fine fabric, sub-conchoidal fracture, and evenly burnished surfaces. With a larger sample, IRPW.RC would most likely be sub-divided into a number of individual classes.

Vessel Forms: Small, globular jars. Only body sherds are represented in the assemblage from Siraf but these appear to belong to a vessel type similar to IRPW.

Surface Treatment: Some pieces have painted decoration. This consists of bands of red, flanked by bands of black, and separated by bands of white, around the shoulder.

Fabric: Hard, compact, finely levigated fabric, fired to a dull orange, orange reduced to grey in the core, or reduced grey throughout.

Inclusions: None or very fine and occasional.

Specifications: Average density, with a compact structure, a soft feel and a clean, or semi-conchoidal fracture.

Parallels and Dating: 1st–8th century. There are no known parallels for this type of material, however the apparent similarities with IRPW suggest that the dating is most likely to be the same (see discussion above).

Origin: Gujarat Province, Western India.

Class Code: HARMIC

Class Name: Hard Micaceous Red Ware

Types: IND-CR2-6

Clay: Earthenware **Production**: Wheel-made/handmade **Illustration**: Plate 54

Defining Characteristics: Hard, compact, orange fabric, with some fine, sandy inclusions. Can be slightly flaky but not brittle like the main Indian cooking pot classes such as BUFRAB or IRAB. All vessels are closed jars, with various types of sharply everted rim, mostly elaborated with some banding, or tooling, reminiscent of IRPW. An important distinguishing feature of HARMIC is that all of the small- to medium-sized vessel are wheel-made, while only large jars (CR5) are handmade. Most vessels are left plain, but some are decorated with simple, black bands around the shoulder, or inside the rim.

COLOUR	
Colour	Reddish-brown/red/light red
Core	5YR 5/4
Margin	10R 5/6
Surface	10R 6/6

Integrity: Within the Indian assemblage HARMIC is clearly distinct from other categories, however, there remains some internal variation within the class; suggesting that the material comes from several centres of production. Whether these all occur within a limited geographic area cannot be determined.

Vessel Forms: Medium- to large-sized jars with rounded, globular bodies and rims that can be simple and everted but are more often complex, with sharply everted flanges accentuated by a series of tooled, or thrown, depressions and ridges.

Surface Treatment: Most vessels are plain and unburnished. A few sherds have brownish-red slip covering the exterior, together with simple, fairly wide bands of black pigment applied to the shoulder, or the inside of the rim.

Fabric: Hard, compact, orange fabric, with some variation towards darker red, or a hint of grey, in the core. The fabric always contains fine flecks of mica visible on the surface. Within the fresh section, it is possible to make out numerous, fine, sandy inclusions and abundant micro-spalling voids, with yellow halos.

INCLUSIONS		
	1	2
Colour	Voids	Grey/white
Size	≤0.7mm	≤0.1mm
Shape	Rounded	Angular
Freq.	3–5%	3%
Sorting	Good	Very good
ID	Micro-spalling	Sandy grits

Specifications: High density, with a compact structure, a fine, gritty feel and a fine, irregular fracture.

Parallels and Dating: 7th–10th century? HARMIC from Siraf is similar to BPCR in the Williamson Collection (Priestman, 2005a: 213-14, pl. 89). The temptation is to assign this material to the same class code; certainly, it belongs to same general production tradition. There appear to be some differences however, including less use of chaff temper and an absence of heavily grit-tempered fabrics. Equally, there are pieces within the class that may have been assigned to the catch-all FIRE class used for material in the Williamson Collection and at Kush (Kennet, 2004: 66). These are fairly generic categories and precise definition seems to be problematic.

Origin: South Asia, Western India or Pakistan.

Class Code: BRISAN

Class Name: Brittle Sandy Painted Ware

Types: None

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 55

Defining Characteristics: Brittle, light pinkish-orange coloured fabric, with abundant, finely sorted, sandy inclusions that are particularly apparent on the weathered, and slightly pitted, interior surfaces. Vessel tend to be relatively thin-walled and include a range of jar types, some of which have a distinctive projecting collar around the shoulder. The most characteristic feature is the exterior surfaces, which are often covered by white wash and painted with crude red and/or black decoration, mostly consisting of bands. Other types of decoration also occur, including rusticated appliqué strips, more complex appliqué decoration and stamped motifs.

COLOUR	
Colour	Light red/reddish-yellow/ very pale brown
Core	2.5YR 6/6
Margin	5YR 6/6
Surface	10YR 7/4

Integrity: With a larger assemblage, BRISAN could most likely be sub-divided into a number of separate classes, based primarily on the style and application of the decoration. In particular, pieces with stamped or more complex appliqué decoration appear to belong to somewhat different traditions. At the same time, all of the material has general characteristics in common, particularly in the firing and the brittle, sandy quality of the fabric.

Vessel Forms: Wide, medium-sized jars, which appear to turn quite sharply at the waist. Also particularly characteristic, is a form with a projecting flange at the base of the shoulder.

Surface Treatment: Various types of decorative arrangement occur, mostly involving different combinations of slip and painting. Exterior surfaces can either be slipped in reddish-brown and painted in black; or slipped with whitewash and painted in red, black, or more often a combination of both colours. Painted decoration tends to consist of sets of broad bands around the shoulder region. In some cases, these frame more complex elements, such as freely painted rosettes. Vessels with a raised collar around the shoulder invariably have a rough, unfinished surface bellow the collar, and are smoother, slipped, and painted, above the collar. Some painted pieces also have a flattened appliqué cordon around the shoulder; rusticated with deep, closely spaced, oblique impressed lines. Single examples within the assemblage from Siraf include a vessel with more complex appliqué decoration, consisting of a vertically impressed cordon and a button with a triangular impression in the centre, and a vessel with small, multiple, stamped rosettes.

Fabric: Hard, compact fabric, that is brittle and flaky, with a slightly laminar structure, and abundant, fine, sandy inclusions and fine flecks of mica. The fabric is generally thoroughly oxidised to brownish-orange or red, though sometimes it turns a darker shade towards the core.

INCLUSIONS	
	1
Colour	Grey/white
Size	≤0.1mm
Shape	Angular
Freq.	7%
Sorting	Very good
ID	Quartz sand

Specifications: Average or slightly low density, with a compact, granular structure, a fine, gritty feel and a fine, irregular fracture.

Parallels and Dating: 7th–10th century? Some characteristics of BRISAN are similar to PAINT from Kush (Kennet, 2004: 66-67), however this pottery is handmade. Parallels for some pieces might also be drawn with the painted Indian pottery from Sohar (Kervran, 1996: 38, fig. 6: 13-21), though none of this material displays the same freely painted decoration as is found on BRISAN from Siraf. While it remains difficult to find an exact parallel for this class, it appears to be related to the repertoire of painted Indian pottery associated with the first few centuries of the Islamic period.

Origin: Western India.

Class Code: SBBW

Class Name: Soft Black Burnished Ware

Types: IND-CR12

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 56

Defining Characteristics: Soft, porous, brittle and crumbly fabric that is consistently reduced to dark grey, occasionally turning to a dull orange, or brown. The fabric contains some organic inclusions and unlike other Indian classes, very little visible mica. The fabric has a low specific density. Vessel surfaces are mostly plain, apart from some tooled grooves around the rim and shoulder, and a high burnishing on the exterior, which, where well preserved, appears oily black. Most often though, the surfaces are degraded. Vessels are mostly medium-sized, round bottomed, cooking pots, with short, constricted necks, sharply everted flange rims, and relatively thick walls.

COLOUR	
Colour	Grey with contrasting colour in the core
Core	5GY 2.5/1
Margin	10YR 5/2
Surface	10YR 3/2

Integrity: Coherent, well defined and readily recognisable class, though with some variation in the hardness, and nature, of coarse inclusions, which may be indicative of multiple centres of production.

Vessel Forms: Medium-sized cooking pots, with rounded bases, low globular bodies and short necks. Sharply everted flange rims, may be left plain, but are more often accompanied by a series of tooled grooves along the exterior lip, the interior of the flange or flange/neck interface.

Surface Treatment: Exterior surfaces are heavily burnished to a glossy black, but this has mostly degraded leaving a plain, matt surface. Vessels can be plain, or simply decorated, with a wide, shallow depressed band immediately bellow the neck, or a series of shallow tooled bands covering parts of the rim, flange interior, and neck.

Fabric: Very soft and brittle, heavily reduced earthenware, with a consistent grey surface and sharply defined discolouration in the core. Often a dark, black layer is sandwiched by greenish-grey towards the margins, or the reverse can occur, with the fabric turning lighter towards the centre. In section, the core appears laminated; and is typically tempered with thin fragments of crushed shell and fine, sub-rounded grit inclusions. Some mica does occur, but this is much less evident than with other Indian classes.

INCLUSIONS		
	1	2
Colour	White	Grey
Size	≤2mm	≤0.4mm
Shape	Angular	Sub-rounded
Freq.	7%	Occasional
Sorting	Very poor	Fair
ID	Crushed shell	Stone grit

Specifications: Low density, with a soft porous structure, a rough feel and an irregular, laminar fracture.

Parallels and Dating: 7th–9th century. This is the same class as SBBW in the Williamson Collection (Priestman, 2005a: 212-13) and from Kush (Kennet, 2004: 66). At Kush, a small cluster of sherds occur in the phased sequence between Phases E-02–E-04 dated to the 7th–early 9th centuries. Thereafter remaining sherds appear to be residual (Kennet, 2004: 66, table 3).

Origin: Western India.

Class Code: BUFRAB

Class Name: Buff Red and Black Ware

Types: IND-CR6-11, F1

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 57

Defining Characteristics: Hard and brittle, sandy-textured fabric, that tends to be fired to a light pinkish-buff or can be somewhat reduced to murky orange-grey, but always has flecks of mica visible on the surface. Vessels include a range of small- to medium-sized jars, generally with wide, short necks and sharply everted rims. Exterior surfaces are covered by a reddish-orange slip, which stops on the interior just inside the neck/shoulder angle. Apart from the slip, exterior surfaces can be plain or marked with repeated, impressed designs, or aligned linear ‘pedalling’ marks. Exterior surfaces vary in colour from the red of the slip, to zones of dark brown or black. Blackening appears to be from use, rather than firing.

COLOUR		
Colour	Pink	Grey/reddish-brown
Core	5YR 7/4	5YR 5/1
Margin	Same as core	5YR 5/4
Surface	Same as core	Same as margin

Integrity: Coherent well defined class. Some potential variation but generally consistent and distinctive.

Vessel Forms: Small- to medium-sized jars, or cooking pots, with low, wide profiles and most likely rounded bases. Vessels are generally wide-mouthed, with short necks and sharply everted flange rims. Rims are generally fairly simple but include a range of distinctive types. One characteristic vessel type has a flange projecting from the shoulder (IND-F1).

Surface Treatment: Exterior surfaces are covered in a reddish-brown, or reddish-purple, coloured slip, which stops on the interior just inside the neck/shoulder interface. The slip surface is almost invariably slightly worn but occasionally, where it is better preserved, shows evidence of burnishing. Other common types of decoration include simple raised or incised bands around the shoulder, or more complex stamped or incised patterning, either as a single horizontal register, or covering a larger zone of the body.

Fabric: Hard and brittle, slightly porous fabric, with abundant, coarse, sandy inclusions. Generally, it is fired to a relatively light pinkish-buff, or murky orange-grey. On reduced pieces, some darkening occurs towards the core.

INCLUSIONS		
	1	2
Colour	Semi-translucent white/red	Red
Size	0.1–3mm	<0.1–1mm
Shape	Sub-rounded	Sub-rounded
Freq.	10%	0–3%
Sorting	Good	Poor
ID	Quartz	Red stone, slightly burnt out

Specifications: High specific density, with a compact, granular structure, a gritty feel and an irregular, somewhat laminar fracture.

Parallels and Dating: 8th–10th century. This is the same class as IRBS in the Williamson Collection (Priestman, 2005a: 214-15). Limited independent dating evidence exists for this class; however, it represents the main South Asian cooking pot class at Siraf, indicating that it is likely to share the same dating as the main occupation of the site.

Origin: Western India.

Class Code: LINVES

Class Name: Large Indian Storage Vessels

Types: IND-CR14-15

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 58

Defining Characteristics: Fairly hard and brittle, vegetal-tempered fabric, with flecks of mica visible on the surface and occasional coarse inclusions. The fabric tends to be fired to a dull orange-brown, darkening to grey in the core. Vessels are all large, thick-walled jars, with fairly narrow necks and robust, thickened, everted, flange rims. The exterior of the neck is often marked with a groove just above the angle change with the shoulder. Exterior surfaces appear to have originally been covered by a red slip, similar to BUFRAB, but in most cases this has worn away.

COLOUR	
Colour	Grey/reddish-yellow
Core	5YR 5/1
Margin	5YR 5/6
Surface	5YR 5/6

Integrity: Rather a small selection of sherds and some variation is evident in the fabric, but typologically this is a consistent and distinctive category.

Vessel Forms: Large thick-walled storage jars with robust, sharply everted and thickened flange rims.

Surface Treatment: Exterior surfaces appear to have been covered by a red slip, but it is not clear if all vessels had the same surface treatment.

Fabric: Hard but brittle, and slightly porous, low density, sandy textured fabric, with abundant vegetal inclusions, that have burnt out leaving short linear voids. The fabric tends to be predominantly oxidised to dull orange-brown but turns darker towards the core.

Inclusions: Frequent, short, linear voids visible on the surface and in section from burnt out vegetal inclusions and occasional, very mixed, coarse inclusions.

Specifications: Low to average density, with a porous structure, a rough feel and an irregular, somewhat laminar fracture.

Parallels and Dating: 8th–10th century. Very close parallels for LINVES jars from Siraf come from Period I at Manda (Chittick, 1984: fig. 44: a) and Level III at Sohar (Kervran, 2004: fig. 11: 17-18), both roughly contemporary with the main phase of occupation at Siraf. Clearly this type of storage vessel had a wide circulation in this period, though they may not have been present at any site in abundance. LINVES are the only type of large storage vessel of Indian origin, and as such they provide a potentially important insight into the pattern of goods circulation, especially when viewed in relation to other known transport vessels originating within the Persian Gulf and the Far East.

Origin: Western India.

Class Code: IRAB

Class Name: Indian Red and Black Ware

Types: IND-CR13

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 59

Defining Characteristics: Brittle, sandy textured, micaceous, reddish-brown earthenware, with patchy, fire-blackened exterior. Interior and exterior surfaces are covered by a brick-red slip, though this is often badly degraded. The main form represented is a wide-mouthed cooking pot, with a strongly everted rim. The surfaces have a slight burnish, or polish, but this is usually worn away.

COLOUR		
Colour	Red/reddish-brown	Brown/red/reddish-brown
Core	10R 5/8	10YR 5/3
Margin	Same as core	2.5YR 4/6
Surface	5YR 5/6	5YR 5/6

Integrity: Coherent class closely related to but distinguishable from BUFRAB.

Vessel Forms: Sherds all belong to a low, wide-mouthed, cooking pots, with rounded bases and sharply everted flange rims, often with squared lips.

Surface Treatment: Interior and exterior surfaces are covered by a dark purplish, or reddish-orange, coloured slip, which appears blackened from use over much of the body and was originally burnished on the exterior. Other decoration includes a low raised ridge around the shoulder and tooled grooves concentrated mostly around the shoulder, and lip of, or inside the flange.

Fabric: Soft, brittle earthenware, with a fine, abrasive, sandy texture, fired to a reddish-brown and patchy areas of fire-blackening from use. The cores are either consistently oxidised or slightly reduced to grey. The fabric contains abundant, poorly sorted, sub-angular quartz grains, in addition to smaller, mixed, sandy elements and high levels of mica.

INCLUSIONS		
	1	2
Colour	Translucent white/pink	Silver or gold
Size	0.1–1mm	≤0.1mm
Shape	Sub-rounded	Flakes
Freq.	5–10%	Occasional
Sorting	Fair	Good
ID	Quartz grains	Mica

Specifications: Average density, with a soft, porous, granular structure, a gritty feel and a fine, irregular laminar fracture.

Parallels and Dating: 11th–14th century. This is the same as IRAB in the Williamson Collection (Priestman, 2005a: 211-12, pl. 88). The class also compares closely with examples noted in Islamic levels at Qala'at al-Bahrain dated to the 14th–16th centuries (Frifelt, 2001: 87, 91, figs 149: b; fig. 151) and

from surface collections made at the site of al-Mataf, which was occupied between the 14th–17th centuries (Hansman, 1985: fig. 11: a, c). At Kush, the same class code has been applied to a group of reddish-brown South Asian cooking pots that are found distributed throughout the sequence, but with a particular concentration in the earliest phase, (W-01), dated to the 4th–5th century, through to Phase E-03–E-04, dated to the 8th–9th century (Kennet, 2004: 66, table 3). Although this would appear to indicate an early dating for the class, re-examination of the sherds in question (Priestman, 2011a) indicates that most actually compare closely with the earlier dated category BUFRAB. IRAB thus appears to be the main Indian cooking pot class that evolves out of the earlier BUFRAB tradition.

Origin: Western India.

Class Code: INCOP

Class Name: Mixed Indian Cooking-Pots

Types: None

Clay: Earthenware **Production**: Handmade **Illustration**: None

Defining Characteristics: Hard, brittle, sandy textured fabrics, with varying levels of silver and gold mica flecks visible on the surface. Vessels are mostly small- to medium-sized cooking pots, with wide mouths and sharply everted rims. Surfaces are mostly plain but can be slipped, or decorated with incised lines, or raised bands.

Colour: Various

Integrity: Generic and extensively mixed.

Vessel Forms: Small to medium-sized cooking pots, or jars, with wide mouths and sharply everted flange rims.

Surface Treatment: Some pieces are slipped and burnished. Some are marked with incised decoration; tooled grooves around the shoulder, lip or flange interior; or a raised band around the shoulder.

Fabric: Various, hard sandy and micaceous. Tends to be fired to orange-brown or grey.

Parallels and Dating: Not known.

Origin: South Asia.

East African Coarse Ware

Class Code: EACOP

Class Name: East African Cooking-Pots

Types: EAF-CR1, OR1

Clay: Earthenware **Production**: Handmade **Illustration**: Plate 60

Defining Characteristics: Fairly hard and brittle, coarse fabric, containing abundant gold mica flecks and grit temper. The fabric tends to be fired to a dull pinkish-, or yellowish-orange, with fire-blackening on the exterior and some discolouration through the core. Vessels are handmade, with saggy profiles and uneven rims. Some vessel types have incised, or impressed, decoration on the exterior.

COLOUR		
Colour	Red/Brown	Brown/light brown/very pale brown
Core	10R 5/6	7.5YR 5/4
Margin	7.5YR 5/4	7.5YR 6/4
Surface	Same as margin	10YR 7/4

Integrity: Certain attributes are consistent and allow one to distinguish the material from handmade cooking pots derived from other regions such as those from South Asia. There is considerable variation in the nature and frequency of coarse inclusions however, and in firing colour and vessel form. This indicates that it should be possible to distinguish between a number of different classes, given access to a larger sample.

Vessel Forms: Handmade vessels with uneven profiles. The main vessel type is a closed-mouthed jar or cooking pot with a saggy, everted, 'S' profile rim (EAF-CR1). Other types include a thick-walled bowl with a squared rim (EAF-OR1).

Surface Treatment: Decoration appears to be type specific. Cooking-pot EAF-CR1 can be plain, or more often has a simple girdle of incised decoration around the shoulder, in the form of arcing lines that intersect, or a double set of wavy lines. EAF-OR1 vessels are always plain.

Fabric: Fairly hard but very brittle, and generally slightly porous fabric, containing abundant flecks of gold mica and different kinds of coarse inclusions, some of which produce small zones of spalling on the surface. The fabric tends to be fired to a dull pinkish-, or yellowish-orange, with strong blackening on the surface, which may have resulted from use rather than the original firing.

Inclusions: Mixed coarse grit inclusions, such as crushed red or black platelets, rounded quartz, and gold mica. The nature and frequency of coarse inclusions varies widely within the generic class.

Specifications: Low density, with a loose, somewhat laminar structure, a harsh feel and a hackly fracture.

Parallels and Dating: 8th–12th century. Much of the EACOP exported from East Africa to the Middle East belongs within the so called 'Tana tradition', which describes handmade vessels circulating roughly within the area of 'Swahili speaking cultures' along the East African coast (Horton, 1996b: 243). EACOP includes material of diverse origin and the dating varies according to specific type. The main type represented (EAR-CR1) has a well developed, 'S' profile rim and simple, incised decoration. This fits within the general tradition of baggy, 'S' profile-rimmed cooking pots such as: Type 1a from Shanga, which is found particularly concentrated in Phases 3-4 in the main Trench 6-10 sequence dated to the 9th century (Horton, 1996b: fig. 168: a-d, table 11); Types 1a-d at Manda found in Periods I and II (Chittick, 1984: figs 56-59); and, Period 1a, Types 1 and 2, and Period 1b, Type 1 from Unguju Ukuu (Juma, 2004: figs 6.2: 1-11; 6.3: 1-11; 6.8: 1-2, 4-8). None of these assemblages however, contain an exact match for EAR-CR1. Most of examples cited have a more sinuous profile and lack the specific decorative motifs found on the examples from Siraf. The closest parallel for this type at Shanga is the rare category, Type 6, which is believed to be an import, possibly from the Comoros Islands (Horton,

1996b: 254, fig. 171: g). This identification is further supported by the material illustrated from six 'Dembeni Phase' sites of the 9th–10th century from the Comoros, which include large numbers of vessels similar to EAR-CR1, with rolled rims and incised decoration consisting of simple bands of intersecting arcs (Wright, 1984: figs 11: g-k; 13: d-i). No known parallels exist for the square-rimmed bowl in the assemblage from Siraf (EAR-OR1), though again they appear most similar to some thick-walled bowls from the Comoros Islands, though in this case, without any evidence for the use of red graphite surface treatment (Wright, 1984: fig. 14: a-b, t).

Origin: The closest parallels that can be established for Types EAF-CR1 and EAF-OR1 from Siraf are examples from the Comoros Islands. However, regional differences within the Tana tradition is still an area that requires substantial additional research (Fleisher and Wynne-Jones, 2011).

Blue/Green Alkaline-Glazed Ware

Class Code: TURQ.YG

Class Name: Yellow-Green Alkaline-Glazed Ware

Types: TUR-OR3, CR13

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 61

Defining Characteristics: Porous, fine, sandy, buff-yellow fabric, with light olive-green coloured glaze often covering the interior only. The most characteristic form is a basin, with upright sides, a single, or several raised bands, low lug handles, and a distinctive bifurcating rim. Other bowl forms, with variations on the bifurcating rim, appear to belong to the same sub-class. The class can be most obviously differentiated from TURQ.T by the forms, the glaze and, to a lesser extent, the fabric.

COLOUR	
Colour	Pale yellow
Core	5Y 8/3-4
Margin	Same as core
Surface	2.5Y 8/4

Integrity: Coherent well defined class.

Vessel Forms: Wide jars, or basins, with upright sides, applied, crescent shaped, lug handles, raised bands, and slightly in-turning rims. The rims have a distinctive notch, or bifurcation. Also, some bowl forms have the same fabric and glazing.

Surface Treatment: Covered, often only on the interior, with light olive-green glaze that can be badly weathered and degraded. Exterior surfaces mostly appear to be marked with simple incised decoration, consisting of a broad, wavy band, or bands, below the rim.

Fabric: Fine-grained, gritty, slightly brittle, buff-yellow coloured earthenware. Under low magnification numerous sandy inclusions are visible, dominated by quartz grains and numerous small voids.

INCLUSIONS		
	1	2
Colour	Semi-opaque white	Grey or red
Size	≤0.5mm	<0.5mm
Shape	Sub-angular	Sub-angular
Freq.	5–10%	0–3%
Sorting	Very good	Very good
ID	Quartz grits	Other sandy elements

Specifications: Average to light density, with a compact granular structure, a gritty feel and an irregular fracture.

Parallels and Dating: 5th–mid-8th century. TURQ.YG is equivalent to ALK.2 in the Williamson Collection (Priestman, 2005a: 234). The light olive-green glaze fits most closely with the description of Kennet's earlier alkaline-glazed classes (Kennet, 2004: 29, 'TURQ.1 and 2'). The class is characterised by a distinctive type covered by bifurcating rim, dated by Williamson on the basis of its absence both from 3rd–5th century levels at Coche and [mostly] from the 8th–9th century foundation levels at Siraf (Williamson, 1971-72: 10-11). A more reliable basis for its dating is provided by the evidence from Kush, where small numbers of the same type (TUR-CR13/Type 64) occur within the stratified sequence in Periods I and II, dated from the 5th to the 7th–8th centuries (Kennet, 2004: table 16). The occurrence of the class in the earliest contexts from Siraf and on sites from Bushehr, where appliqué decorated alkaline-glazed ware is absent (Priestman, 2005b), suggests that TURQ.YG went out of circulation before the mid-8th century.

Origin: No specific work has been carried out on this sub-category, however petrographic analysis undertaken on a range of TURQ.T specimens from Siraf indicates that there are several different manufacturing centres, all based in southern Iraq (Mason and Keall, 1991: 57). The close relationship between TURQ.T and TURQ.YG would suggest that these results should equally apply to this category.

Class Code: TURQ.T

Class Name: Turquoise Alkaline-Glazed Ware

Types: TUR-OR1-2, OR4-16, CR1-14, B1, H1, F1-5

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plates 62-66

Defining Characteristics: Monochrome turquoise, or blue-green, coloured glaze usually covering both the exterior and interior, though on closed forms the glaze often appears thin and discoloured on the interior. The fabric is light buff-yellow. It has a fine, gritty feel and sometimes contains small, rolled, quartz grains. The fabric can be quite brittle, though often it is hard. Vessels include a wide range of jars, bowls and other specialised types.

COLOUR	
Colour	Pale Yellow
Core	5Y 8/3-4 or 2.5Y 7-8/3
Margin	Same as core
Surface	Same as core

Integrity: Coherent, well defined class with limited variation.

Vessel Forms: The class encompasses a broad range of forms and functional types. Vessel types appear to be the most useful criterion for sub-dividing the long-lived alkaline-glazed ware tradition.

Surface Treatment: TURQ.T typically has a relatively well preserved dark turquoise-blue, or lighter turquoise-blue, glaze covering the interior and exterior. Lighter pieces on the whole appear to represent the same glaze colour but in a more degraded condition. Certainly, lighter and darker blue glaze is represented across all of the same forms. Apart from the glaze, most pieces are undecorated. Exceptions to this include TUR-CR1 or its associated body sherds: TUR-F1, which have appliqué decoration consisting of round flattened buttons, straight, or wavy, strips, and sometimes more complex decorated rosettes. Often the necks of these vessels are decorated with heavy rilling or an incised 'saw-tooth' line. Other decorated vessels include TUR-CR11, with complex, deep gouged decoration covering a large part of the body. Finally, there are heavy jars ornamented by chain ridges placed around the shoulder or waist. Appliqué decoration and gouged designs appear to be particularly characteristic features of decoration found on blue/green alkaline-glazed ware of the Early Islamic period. Chain-ridges possibly have a longer currency.

Fabric: Fine-grained, gritty, slightly brittle, buff-yellow earthenware. Under low magnification some pieces have numerous, sandy inclusions dominated by well rounded, quartz grains together with numerous small voids.

INCLUSIONS	
	1
Colour	Semi-opaque white
Size	≤0.5mm
Shape	Sub-rounded
Freq.	0–3%
Sorting	Good
ID	Quartz grits

Specifications: Average to light density, with a compact, granular structure, a gritty feel and an irregular fracture.

Parallels and Dating: 3rd–10th century. TURQ.T is equivalent to ALK.1 in the Williamson Collection (Priestman, 2005a: 234-39, pl. 90). Alkaline-glazed ware is first documented in the Persian Gulf region from the 3rd century BC (Kennet, 2004: 29); though until the early Sasanian period the glaze colour appears to mostly weather to a golden yellow, or powdery white. Evidence for the terminal dating of TURQ.T is provided by the evidence from Shanga in East Africa, where the class tails off dramatically after Phase 8 in the Trench 6-10, suggesting a decline in circulation during the 10th century (Horton, 1996b: 277, fig. 197). This conclusion appears to be supported at Sharma in Yemen, where only a few sherds occur on the surface or in the lowest levels of the site, the latter of which can be dated to the late 10th century (Rougeulle, 2005: 226-27).

Origin: Petrographic thin-section analysis conducted on examples of TUR-OR1/F1, CR10 and B1 from Siraf indicated a close comparison to kiln furniture and waster material collected within the vicinity of al-Basra in southern Iraq and now housed in the Metropolitan Museum in New York (Mason and Keall, 1991: 52-53, 57). More recent petrographic and geochemical analysis of samples recovered during survey in the Deh Luran plain, seems to support this provenance identification (Hill, Speakman and Glascock, 2004: 597).

Moulded Monochrome-Glazed Ware

Class Code: GLAMO.Y

Class Name: Yellow-Glazed Moulded Ware

Types: GLM-OR1-2

Clay: Earthenware **Production**: Moulded **Illustration**: Plate 67

Defining Characteristics: Small, thin-walled dishes, bowls and jars, with fine, moulded decoration and a badly degraded, bright yellow glaze. The fabric is very fine and compact, and fired to oxidised tones of creamy-buff or orange.

COLOUR		
Colour	Reddish-yellow	Pale yellow
Core	5YR 7/6	2.5Y 7/3
Margin	7.5YR 7/4	Same as core
Surface	Same as margin	Same as core

Integrity: More than one fabric is represented within the class. Objects of a clearly unified concept and design were evidently being manufactured at different production centres.

Vessel Forms: Small, thin-walled vessels, with simple, squared rims. The most common types appear to be shallow, open dishes, often with lobed rims, and pronounced internal ridges (GLM-OR1). Also common is a half-closed bowl, with moulded decoration on the exterior (GLM-OR2).

Surface Treatment: Both the interior and exterior surfaces are covered by a white slip and the remnants of 'canary yellow' coloured glaze, the original appearance of which is difficult to determine, due to its degraded condition. Facing surfaces – interiors of open bowls, and exteriors of closed bowls and jars – are marked with detailed moulded decoration. This consists of double lined borders below the rim, flanked with hanging loops filled with foliate patterning.

Fabric: Hard, very finely levigated, oxidised buff-yellow, or light orange, coloured fabric, with no visible inclusions. The fracture tends to be clean or sub-conchoidal.

Inclusions: None

Specifications: Average density, with a compact structure, a smooth feel and a clean, sub-conchoidal fracture.

Parallels and Dating: Late 8th–9th century. A number of features suggest strong parallels between this class and green moulded ware (GM) imported from China, including the monochrome yellow, or green glaze, the intricate, moulded decoration, thin walls, small vessel size, and particular vessel forms, especially the shallow open dish type (GLM-OR1). If GLAMO.Y represents an imitation of GM, then it should be dated no earlier than the first introduction of GM as an import to the Persian Gulf. GM appears to have been amongst the early East Asian imports to the region, appearing sometime within the later 8th century and probably going out of circulation before the end of the 9th century.

Origin: The cream coloured fabric on some pieces is indicative of Iraqi production. This would fit with the relatively early dating of this class that places it amongst the earliest examples of the Islamic lead

glaze tradition, which appears to have flourished initially within Iraq and later to have spread to Iran (Priestman, 2005a: 104-27). The more orange firing quality of some pieces may also point to production of the class within Iran.

Opaque-Glazed Ware

Class Code: OPAQ.W

Class Name: Monochrome White Opaque-Glazed Ware

Types: SAM-OR1-3, OR5-9, OR11-12, OR15-20, B1-6, B9, CR1-3, F1

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 68

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with a thick, plain, opaque, white glaze covering the interior and exterior. The glaze is poorly fitted and has a tendency to exfoliate from the body. Most pieces are open vessels; particularly bowls, with gentle, flaring rims, and cleanly turned, squared foot rings. Some closed forms are represented but these are not as commonly associated with OPAQ.W as with some colour-decorated categories, such as OPAQ.PS and OPAQ.B.

COLOUR	
Colour	Pale yellow
Core	2.5Y 8/3
Margin	Same as core
Surface	Same as core

Integrity: Coherent, well defined class. Only where the glaze has partially, or wholly, exfoliated is it difficult to determine which opaque-glazed ware sub-class a sherd belongs to.

Vessel Forms: The most common form is an open bowl, with a gently flaring rim, and raised, vertical ridges on the interior, accompanied by slight notches in the rim. The inside of the bowl can be flat (SAM-B1) or have a distinctive sharp step down to the interior base (SAM-B3). This may have chronological significance as it mirrors a similar change noted in the introduction of the 'stepped floor' in Chinese Yue wares during the 9th century. The underside always has a finely turned, squared foot ring.

Surface Treatment: Covered over the interior and exterior with a plain, white, opaque glaze. Otherwise plain, apart from the vertical ridges and rim notch associated with SAM-OR2.

Fabric: Hard, finely levigated, creamy-yellow earthenware, with a fine, irregular fracture. The fabric can be un-tempered, but more often it has occasional, poorly sorted, rounded, quartz inclusions.

INCLUSIONS	
	1
Colour	Translucent white
Size	<0.5–1mm
Shape	Rounded
Freq.	0–5%
Sorting	Poor
ID	Quartz grains

Specifications: Low density, with a compact structure, a rough feel and a fine, irregular fracture.

Parallels and Dating: Early 9th–10th century. OPAQ.W is the same as TIN.W1 in the Williamson Collection and YBTIN from Kush (Priestman, 2005a: 239-40; Kennet, 2004: 32). Evidence from Siraf indicates that OPAQ.W was introduced as one of the earliest elements in the 'Samarra horizon' during Period 4 of the Site A sequence (Whitehouse, 1979b: 52, fig. 3). A study of surface finds associated with individual, historically dated, areas of Samarra indicates that OPAQ.W was not introduced before the construction of Qatul in AD 834–35 (Northedge and Kennet, 1994: 25).

Origin: Southern Iraq.

Class Code: OPAQ.C

Class Name: Cobalt-Decorated Opaque-Glazed Ware

Types: See OPAQ.W

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 69

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with a thick, opaque, white glaze covering the interior and exterior. This is painted with trails of crisp, dark cobalt-blue coloured decoration. Forms are mostly simple open bowls.

Integrity: Coherent, well defined class.

Surface Treatment: Covered in an opaque, white glaze, decorated with dark cobalt-blue pigment applied minimally as trailed lines; or brushwork forming either abstract lines, or pseudo-calligraphic and floral patterns. Cobalt pigment reacts in a different manner to copper oxide associated with OPAQ.TS and, instead of running into the glaze in diffuse splashes, sits slightly proud of the surface and remains stable, lending itself to a more controlled application.

Fabric: See OPAQ.W

Parallels and Dating: Early–mid-9th century. OPAQ.C is the same as TIN.CT in the Williamson Collection (Priestman, 2005a: 242-43). This class does not occur at Kush and should not be confused with COBALT (see OPAQ.TS 'Parallels and Dating' below). Evidence from Siraf suggests that OPAQ.C was introduced together with OPAQ.W in Period 4 of the Site A sequence as one of the first elements of the 'Samarra horizon', which appears later in the sequence than a coin hoard in Period 1 of the Great Mosque dated AD 803–04 (Whitehouse, 1979b: 52, 56, fig. 3). A study of surface finds from Samarra suggests that OPAQ.C does not occur anywhere on the main city site itself, but only at the site of Qatul which was constructed in AD 834–35 (Northedge and Kennet, 1994: 25). The class is almost certainly an imitation of the rare Chinese Blue and White ware from the Gongxian kilns in Hunan; the only complete examples of which have been recovered from the Belitung shipwreck dated to around the mid-9th century (Guy, 2001-02: 20, 25, figs 10-11).

Origin: Southern Iraq.

Class Code: OPAQ.WC

Class Name: White on Cobalt Opaque-Glazed Ware

Types: SAM-OR10

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 70

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with a thick, opaque, cobalt-blue glaze covering the interior and exterior. Types SAM-OR2 and SAM-OR19 appear to be monochrome cobalt-blue, while SAM-OR10 has a bichrome effect of decoration over-painted in white.

Integrity: Coherent and distinctive class.

Vessel Forms: Monochrome cobalt-blue vessels include small, simple bowls, and a lamp. Bichrome white on cobalt pieces are restricted to the distinctive, class-specific type, with straight, flaring walls, a triangular lip, and a sharp angle at the base. The base is wide and flat with a turned recess in the centre, reminiscent of the 'bi-disc' base associated with early Chinese porcelain and Yue ware.

Surface Treatment: Covered over the interior and exterior with an opaque, monochrome, cobalt-blue coloured glaze that can be left plain or is over-painted with white decoration. Decorative motifs appear stylistically closely related to OPAQ.C and consist of minimal, vertically aligned, pseudo calligraphic registers. This scheme is essentially a colour reversal of that found on OPAQ.C, with white on cobalt-blue, as opposed to cobalt-blue on white. The latter is far more visually striking and appears to have been produced more extensively. The use of cobalt pigment as the predominant glaze colorant is also likely to have been more costly.

Fabric: See OPAQ.W

Parallels and Dating: Early–mid-9th century. The strong stylistic association between OPAQ.WC and OPAQ.C and use of cobalt pigment suggests that these two classes are most likely to be chronologically associated. OPAQ.C appears as one of the earliest elements of the 'Samarra horizon' together with OPAQ.W (see above). Specific parallels for this colour combination have not been identified elsewhere.

Origin: Southern Iraq.

Class Code: OPAQ.TS

Class Name: Turquoise Splashed Opaque-Glazed Ware

Types: See OPAQ.W

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 71

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with a thick, opaque, white glaze covering the interior and exterior. Surfaces are decorated with diffuse splashes of bright turquoise, copper oxide pigment. The glaze is poorly fitted and has a tendency to exfoliate from the body.

Integrity: Coherent, well defined class.

Vessel Forms: The class covers a similarly wide range of vessel forms to OPAQ.W. Most vessels are open bowls. Lamps seem to be disproportionately well represented.

Surface Treatment: Plain, white glaze, with splashes of turquoise blue, or green, copper oxide, that react in an unstable manner and diffuse within the glaze melt. Splashes cover the facing surfaces only; interiors of bowls and lamps, and exteriors of jars.

Fabric: See OPAQ.W

Parallels and Dating: Mid-9th–10th century. OPAQ.TS is the same as the turquoise splashed component of TIN.TBS in the Williamson Collection and COBALT from Kush (Priestman, 2005a: 241; Kennet, 2004: 32-33). As has previously been noted, 'COBALT' is a misleading appellation, as these pieces are splashed with turquoise copper oxide, not the cobalt-blue which is associated with a separate and earlier category (OPAQ.C). Although Whitehouse's terminology leaves some doubt, it would appear that OPAQ.TS was introduced at Siraf as part of the second stage in the 'Samarra horizon', in Period 5 of the Site A sequence (Whitehouse, 1979b: 52, fig. 3). Similarly, at Kush, OPAQ.TS appears a phase later than OPAQ.W; in Phase E-06 dated to the 9th–11th centuries (Kennet, 2004: 32-3, table 3). This picture is supported by the study of surface finds from Samarra, which produced abundant finds of OPAQ.TS from areas occupied from AD 836 to 885–895 (Northedge and Kennet, 1994: 29).

Origin: Southern Iraq.

Class Code: OPAQ.TBS

Class Name: Turquoise and Black Splashed Opaque-Glazed Ware

Types: See OPAQ.W

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 72

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with a thick, opaque, white glaze covering the interior and exterior. Surfaces are decorated with diffuse splashes of bright, turquoise copper oxide, and black manganese pigment. The glaze is poorly fitted and has a tendency to exfoliate from the body.

Integrity: Coherent, well defined class, though fragments only bearing copper green splashes would be assigned to OPAQ.TS.

Vessel Forms: Similar repertoire of vessel forms to OPAQ.TS.

Surface Treatment: Zones of turquoise and black splashing on the interior. Turquoise tends to run into the glaze and appear diffuse, while the manganese reacts in a more stable manner, forming solid blotches.

Fabric: See OPAQ.W

Parallels and Dating: Mid-9th–10th century. This is the same class as the turquoise and black splashed component of TIN.TBS in the Williamson Collection (Priestman, 2005a: 241, pl. 117) and COBALT at Kush

(Kennet, 2004: 32-33). The dating for OPAQ.TBS should be the same as OPAQ.TS; as these two groups are stylistically very closely related (see OPAQ.TS 'Parallels and Dating' above).

Origin: Southern Iraq.

Class Code: OPAQ.LG

Class Name: Opaque-Glazed Ware with Monochrome Gold Lustre

Types: See OPAQ.W

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 73

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with a thick, opaque, white glaze covering the interior and exterior. This is over-painted with intricate gold lustre decoration, that is often badly degraded and survives only as faint, yellow traces. Where completely degraded, OPAQ.LG sherds are indistinguishable from OPAQ.W.

Integrity: Coherent, well defined class but recognition is dependent on preservation.

Vessel Forms: Mostly small, thin-walled, open vessels. Some closed forms are also represented.

Surface Treatment: Plain, white glaze, over-painted with metallic, monochrome, gold lustre, that appears as a yellow stain when degraded. Most decoration is very poorly preserved, but where it does survive, it generally consists of panels filled with repeated elements, such as dashes or dots. Exteriors of bowls are often decorated with vertically aligned brush strokes.

Fabric: See OPAQ.W

Parallels and Dating: Late 9th–10th century. This is the same class as the TIN.ML in the Williamson Collection (Priestman, 2005a: 244, pl. 121) and LUSTRE at Kush (Kennet, 2004: 33-34). Evidence from the Site P1 and M2 sequences at Siraf indicate that OPAQ.LG was introduced as one of the latest elements of the Samarra horizon, together with GRAF.EP (Whitehouse, 1979b: 54, fig. 4). A study of surface finds from Samarra suggests that these events took place at the very end of the 9th, or more likely the beginning of the 10th century, as there have been no finds of OPAQ.LG from the main city at Samarra, which was occupied up until at least AD 885–895 (Northedge and Kennet, 1994: 29, 33).

Origin: Southern Iraq.

Class Code: OPAQ.LR

Class Name: Opaque-Glazed Ware with Monochrome Ruby Lustre

Types: See OPAQ.W

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 74

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with a thick, opaque, white glaze covering the interior and exterior, over-painted with monochrome, ruby-red lustre. Lustre painting is often badly degraded and survives only as a faint coloured trace.

Integrity: Coherent, well defined class but recognition is dependent on preservation.

Vessel Forms: Mostly small, thin-walled open bowls. Some closed forms are also represented.

Surface Treatment: Plain, opaque white glaze, over-painted with metallic ruby-red lustre that appears as a faint coloured stain when degraded. Most decoration is very poorly preserved, but where evident appears to be similar to that associated with OPAQ.LG, and consists of panels filled with repeated elements, such as dashes or dots. Exteriors of bowls are often decorated with vertically aligned brush strokes.

Fabric: See OPAQ.W

Parallels and Dating: Mid–late 9th century. This category falls within the definition of TIN.PL in the Williamson Collection (Priestman, 2005a: 244-45, pl. 120). A distinction has been drawn between polychrome and monochrome lustres, in terms of the technical and chronological development of the tradition (see below). Normally, 'ruby' red lustre is placed within the polychrome lustre category, however, in this case, red is the only lustre colour used. It is therefore not entirely clear where this category belongs chronologically. If placed amongst the polychrome lustres, it may be earlier in date than OPAQ.LG. Unlike the latter category, significant quantities of polychrome lustre have been recovered from the main city site of Samarra, indicating that the class was in circulation between AD 836, when the city was founded, and AD 885–895, when it was abandoned (Northedge and Kennet, 1994: 33).

Origin: Southern Iraq.

Class Code: OPAQ.LP

Class Name: Opaque-Glazed Ware with Polychrome Lustre

Types: See OPAQ.W

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 75

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with thick, opaque, white glaze covering the interior and exterior. This is over-painted with a combination of copper-brown, gold, and ruby-red lustre. Lustre painting is often badly degraded and survives only as a faint coloured trace.

Integrity: Coherent, well defined class but recognition is dependent on preservation.

Vessel Forms: Mostly small- to medium-sized, open bowls.

Surface Treatment: Plain, white, opaque glaze, over-painted with metallic ruby-red, copper-brown, and gold lustre that appears as a faint coloured stain when degraded. Most decoration is very poorly preserved but where evident, appears to be similar to that found on OPAQ.LG and consists of panels

filled with repeated elements, such as dashes or dots. Exteriors of bowls are often decorated with vertically aligned brush strokes.

Fabric: See OPAQ.W

Parallels and Dating: Mid–late 9th century. This is the same class as the TIN.PL in the Williamson Collection (Priestman, 2005a: 244-45, pl. 120). Unlike OPAQ.LG, significant quantities of OPAQ.LP have been recovered from the main city site of Samarra, indicating that the class has an earlier dating and was in circulation between AD 836, when the city was founded, and AD 885–895, when it was abandoned (Northedge and Kennet, 1994: 33).

Origin: Southern Iraq.

Class Code: OPAQ.PS

Class Name: Polychrome Splashed Opaque-Glazed Ware

Types: See OPAQ.W

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 76

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with thick, opaque, white glaze covering the interior and exterior, decorated with bright splashes of green, turquoise-blue, brownish-yellow, and purple or black. Compact colour combinations occur on the facing surfaces; the interiors of bowls and exteriors of jars. Exteriors of bowls tend to be splashed more minimally and often only with one colour, generally green, or turquoise-blue.

Integrity: Coherent and distinctive class. Some potential crossover with OPAQ.B.

Vessel Forms: A mixture of simple, medium-sized, open bowls, and closed jar forms. Closed forms are far more common in this category than with other opaque-glazed wares apart from OPAQ.B.

Surface Treatment: Colours are mostly applied in crude, radiating, vertical stripes. Remaining white zones are sometimes filled with spots or elementary motifs. All of the colours run into the glaze and into one another, giving a haphazard, splashed appearance.

Fabric: See OPAQ.W

Parallels and Dating: Mid-9th–10th century. This class can at times be difficult to distinguish from its closely related, clear lead glazed, counterpart, SPLASH.P1, and the two groups generally appear to be conflated within the archaeological literature. The only differentiating feature between the two is the slightly brighter, and more finely levigated, creamy-yellow coloured fabric, and the thick, opaque quality of the glaze associated with OPAQ.PS. Otherwise, it seems that these two groups must be closely related and are therefore likely to share a similar dating. For the discussion of dating, see SPLASH.P1 below.

Origin: Southern Iraq.

Class Code: OPAQ.T

Class Name: Monochrome Turquoise Opaque-Glazed Ware

Types: See OPAQ.W

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 77

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with a thick, opaque, monochrome, turquoise glaze covering the interior and exterior.

Integrity: Coherent, well defined class. Could be confused with TURQ.T, but the fabric is more finely levigated.

Vessel Forms: Wide range of forms; mostly bowls but also a number of different types of closed vessel. Type range is similar to OPAQ.W.

Surface Treatment: Opaque, monochrome, turquoise-blue glaze covering both the interior and exterior.

Fabric: See OPAQ.W

Parallels and Dating: Mid-9th–10th century. This is the same class as the TIN.T in the Williamson Collection (Priestman, 2005a: 243, pl. 118). In the discussion of opaque-glazed wares from Siraf and Kush (Whitehouse, 1979b; Kennet, 2004: 31-34, tables 3; 18-19), there has been no indication of the dating of coloured monochromes. They are unlikely however, to belong to the earliest phase of the Samarra horizon and were probably introduced as part of the diversification of opaque-glazed wares from the mid-9th–10th century.

Origin: Southern Iraq.

Class Code: OPAQ.B

Class Name: Monochrome Black or White on Black Opaque-Glazed Ware

Types: See OPAQ.W

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 78

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with a thick, opaque, black glaze covering the interior and exterior. Some vessels are also decorated with splashes of white. Surfaces tend to be slightly degraded and the white pigment can appear as a silvery shadow. It is not clear exactly what the original appearance of these vessels would have been.

Integrity: Coherent, well defined class. Some potential overlap between this class and OPAQ.PS, particularly for closed vessels that share the same forms.

Vessel Forms: A reasonably wide range of forms, mostly simple, open bowls but also a number of closed vessels. Closed vessels are better represented in association within OPAQ.B than in most opaque-glazed ware sub-classes. Closed vessels are very similar in form to those associated with OPAQ.PS and there is clearly stylistic overlap between these two sub-classes.

Surface Treatment: Monochrome, black glaze, sometimes with limited splashes of white. On open bowls, this can be arranged in rough, cross motifs occupying the whole of the interior of the vessel. Areas of black colouring have a tendency to weather and take on an iridescent sheen.

Fabric: See OPAQ.W

Parallels and Dating: Mid-9th–10th century. Strong typological and stylistic parallels between the OPAQ.B and OPAQ.PS indicate that this class is most likely to belong to the second phase of the opaque-glazed ware tradition dated from the mid-9th century. Specific parallels for this colour combination noted in the assemblage from Siraf have not been identified elsewhere.

Origin: Southern Iraq.

Class Code: OPAQ.BW

Class Name: Black on White Opaque-Glazed Ware

Types: See OPAQ.W

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 79

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with a thick, opaque, white glaze covering the interior and exterior, decorated on the interior with diffuse splashes of black manganese pigment.

Integrity: Coherent, well defined class.

Vessel Forms: All small- to medium-sized, open bowls.

Surface Treatment: Opaque, white glaze covering the interior and exterior, decorated on the interior with splashes of black manganese, often in broad, radial stripes, similar to those associated with OPAQ.PS.

Fabric: See OPAQ.W

Parallels and Dating: Mid-9th–10th century. Stylistically, this appears to belong to the colour-splashed categories of opaque-glazed wares introduced during a second phase of the Samarra horizon, starting from the mid-9th century. Three sherds, of what appears to be the same class, were recovered from the phased sequence at Kush in Phase E-06, generally dated to the 9th century (Kennet, 2004: 33).

Origin: Southern Iraq.

Class Code: OPAQ.BT

Class Name: Black on Turquoise Opaque-Glazed Ware

Types: See OPAQ.W

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 80

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with a thick, opaque, turquoise-blue glaze covering the interior and exterior, decorated on the interior with diffuse splashes of black manganese pigment.

Integrity: Coherent, distinctive category.

Vessel Forms: Small, open bowls.

Surface Treatment: Opaque, turquoise-blue glaze covering the interior and exterior, decorated on the interior with diffuse splashes of black manganese arranged in broad, radial stripes.

Fabric: See OPAQ.W

Parallels and Dating: Mid-9th–10th century. Stylistically, this appears to belong to the colour-splashed categories of opaque-glazed wares introduced during a second phase of the Samarra horizon starting from the mid-9th century. Specific parallels for this colour combination noted in the assemblage from Siraf have not been identified elsewhere.

Origin: Southern Iraq.

Class Code: OPAQ.CP

Class Name: Eggshell/White Ware Painted with Coloured Opaque-Glaze

Types: None

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 81

Defining Characteristics: Small- or medium-sized jars, with a compact, finely levigated, light cream coloured fabric, and distinctive surface decoration consisting of painted lines of coloured, opaque glaze on a plain, unglazed surface. Other than the surface decoration, the vessel types appear to be the same as those associated with EGG.PI and WHITE.PI. Decoration includes the use of thick, opaque, cobalt-blue and yellow, coloured glaze. The colours and mode of application suggest a close stylistic affinity to OPAQ.C.

COLOUR	
Colour	Pale yellow
Core	2.5Y 8/2-3
Margin	Same as core
Surface	2.5Y 8/2

Integrity: Coherent and very distinctive class.

Vessel Forms: Small, thin-walled jars with flaring necks, or medium-sized jars with rounded bodies and handles attached at the shoulder.

Surface Treatment: Plain, unglazed surfaces, decorated with thick, opaque glaze applied as fairly crude, painted, decoration, which sits proud of the body. Most of the decoration is applied as lines of cobalt-blue, with bright orange-yellow used to fill zones within the decorative scheme.

Fabric: Compact, finely levigated, low or medium density fabric, fired to a light cream, or orange-buff, colour. The fabric is smooth, with a chalky texture, and contains either no visible inclusions, or occasionally isolated and varied coarse elements and voids. The fabric appears to be closely related to, and is possibly the same as that associated with, opaque-glazed wares (see OPAQ.W).

Inclusions: None or occasional varied.

Specifications: Low to medium density, with a compact structure, a smooth, chalky feel and a clean, semi-conchoidal fracture.

Parallels and Dating: Early–mid-9th century. The use of cobalt-blue diluted within an opaque glaze appears technically, and stylistically, identical to the decoration associated with OPAQ.C. Indeed, the existence of OPAQ.CP concurs exactly with the results obtained by a combination of microscopic examination and Beta Ray Back Scatter analysis of OPAQ.C sherds from Hira. The analysis indicated that where the cobalt-blue pigment was applied directly to the body, it appeared turbid and stands proud of the surface, whereas on pieces where the colour had been applied on top of the glaze, the colour sat flat and appeared brighter (Tamari, 1995: 140). One possible reason for the use of a thicker solution when applying colour direct to the body, may have been to avoid the colour being absorbed by the porous fabric. Given the evident overlap between OPAQ.C and OPAQ.CP, it can be assumed that this class shares the same dating within the earliest part of the 'Samarra horizon'. The apparent scarcity of the class would support a short period of circulation. Similar material with painted decoration over a plain unglazed body also occurs at Susa (Koechlin, 1928a: pl. X: 72, 75, 78-79, 81; Kervran, 1977: fig. 28: 10-11).

Origin: Southern Iraq.

Class Code: OPAQ.N-ID

Class Name: Non-Identified Opaque-Glazed Ware

Types: See OPAQ.W

Clay: Earthenware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: Hard, compact, finely levigated, light yellow coloured fabric, with a thick, opaque glaze covering the interior and exterior. The glaze has a poor fit within the body, often causing it to exfoliate. Pieces in this category have either lost their glaze entirely, or the glaze surface has degraded to such an extent that the surface colour can no longer be identified.

Integrity: Clearly recognisable category but the condition of the material does not allow pieces to be assigned to a specific sub-class.

Vessel Forms: Mostly small- to medium-sized, open bowls. Also, some closed vessels.

Surface Treatment: Covered with a degraded, opaque glaze.

Fabric: See OPAQ.W

Parallels and Dating: Early 9th–10th century. Pieces potentially dated any time within the currency of the opaque-glazed wares, see above.

Origin: Southern Iraq.

Clear Splash-Glazed Ware

Class Code: SPLASH.GW1

Class Name: Green and White Splash-Glazed Ware – Cream Body

Types: SAM-OR1, OR4-5, OR14-15, OR19, CR4, B1, B3, B7-8, B10

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 82

Defining Characteristics: Open bowls, with a hard, finely levigated, light cream coloured fabric covered on the interior, and whole exterior, with clear, lead glaze, splashed with diffuse zones of dark bottle-green. Green splashes contrast with the clear glaze, showing white over the body, and can be arranged randomly or in vertical streaks.

COLOUR	
Colour	Pale yellow
Core	2.5Y 8/3-4
Margin	Same as core
Surface	Same as core

Integrity: Consistent application of glazing and decoration, but with some subtle variation in fabric quality.

Vessel Forms: Various open vessels, most commonly medium-sized, open bowls, with flaring rims (SAM-OR2) and a carefully turned foot ring (SAM-B7).

Surface Treatment: Clear, lead glaze covering the interior and exterior, splashed randomly, or in vertical streaks, with dark green. The glaze is often badly weathered, losing its shiny surface and taking on an iridescent sheen.

Fabric: Hard, compact, finely levigated, light cream coloured fabric, with very fine, dark inclusions and numerous very small voids.

INCLUSIONS		
1	2	3
black	Grey or red	Voids
<0.1mm	<0.5mm	≤0.1mm
sub-angular	Sub-angular	Sub-rounded
<3%	0–3%	3%
far	Very good	Poor
stony grit	Other sandy elements	Air pockets

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Parallels and Dating: Mid-9th–10th century. This is the same as SPL.GW with Fabric 84 in the Williamson Collection (Priestman, 2005a: 248-49, pls. 108-09). The glaze colour scheme, of white with dark green splashes, is clearly an imitation of GWSG manufactured in China and first imported to the Middle East during the 9th century. At Siraf, clear, splash-glazed wares, both polychrome, and green and white colour schemes, together with opaque, splash-glazed ware, emerge as part of the second stage in the 'Samarra horizon' during Period 5 of the Site A sequence; a phase later than OPAQ.W and OPAQ.C (Whitehouse, 1979b: 52, fig. 3). A recent study of surface finds from different historically dated areas of Samarra has confirmed the fact that SPLASH.GW and SPLASH.P were introduced later than the earliest elements of the Samarra horizon, probably during the mid-9th century and certainly before the occupation of al-Mutawakkiliyya in AD 861 (Northedge and Kennet, 1994: 33).

Origin: Closer study of splash-glazed ware fabrics is likely to reveal multiple production centres, as already suggested by the variation in coarse inclusions. By analogy with other categories, such as opaque-glazed ware, turquoise alkaline-glazed wares and eggshell wares, categories with pale cream coloured fabrics are more likely to come from southern Iraq.

Class Code: SPLASH.GW2

Class Name: Green and White Splash-Glazed Ware – Orange Body

Types: SAM-OR1, OR4-5, OR15, OR19, CR4, B1, B3, B7-8, B10

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 83

Defining Characteristics: Mostly open, and some closed vessels, with a hard, finely levigated, orange coloured fabric, covered on the interior, and whole exterior, with white slip and clear, lead glaze, splashed with diffuse zones of dark bottle-green. Green splashes contrast with the clear glaze showing white over the cream slip. Splashes can be arranged randomly or in vertical streaks.

COLOUR		
Colour	Reddish-yellow	Pink
Core	5YR 7/6	7.5YR 7/4
Margin	5YR 6/6	7.5YR 8/4
Surface	Same as margin	Same as margin

Integrity: Consistent application of glazing and decoration but with fairly extensive variation in fabric quality.

Vessel Forms: Mostly open bowls together with some closed jars.

Surface Treatment: Covered with white slip and clear, lead glaze, splashed randomly, or in vertical streaks with dark green. The glaze is often badly weathered losing its shiny surface and taking on an iridescent sheen.

Fabric: Hard, compact, finely levigated, orange coloured fabric, with occasional mixed inclusions of black, red, or buff coloured grits and some small voids.

INCLUSIONS		
	1	2
Colour	Mixed	Voids
Size	≤0.3mm	≤0.2mm
Shape	Rounded	Sub-angular
Freq.	<3%	2%
Sorting	Fair	Poor
ID	Mixed grits	Air pockets

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Parallels and Dating: Mid-9th–10th century. This is the same as SPL.GW with Fabric 85 in the Williamson Collection (Priestman, 2005a: 248-49, pls. 108-09). For discussion of the dating see SPLASH.GW1 above.

Origin: Closer study of splash-glazed ware fabrics is likely to reveal multiple production centres, as already suggested by the variation in coarse inclusions. By analogy with other categories, particularly sgraffiatos, pieces with an orange coloured fabric are more likely to come from southern Iran.

Class Code: SPLASH.P1

Class Name: Polychrome Splash-Glazed Ware – Cream Body

Types: SAM-OR1, OR4-5, OR15, OR19, CR4, B1, B3, B7-8, B10

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 84

Defining Characteristics: Mostly open, and some closed, vessels, with a hard, finely levigated, light cream coloured fabric, covered on the interior and exterior with clear, lead glaze, splashed with diffuse zones of green and yellowish-brown, and in some cases dark purplish-brown or black. This class can be difficult to distinguish from OPAQ.PS, which has a similar scheme of splashed decoration and a cream coloured fabric. The main differentiating features appear to be the slightly coarser body on some pieces and the thin, non-opacified quality of the glaze.

COLOUR		
Colour	Pale yellow	Very pale brown
Core	2.5Y 8/4	10YR 8/4
Margin	Same as core	10YR 8/3
Surface	Same as core	Same as margin

Integrity: Consistent application of glazing and decoration but with fairly extensive variation in fabric quality and the nature, and frequency of, coarse inclusions. Several different production centres are represented.

Vessel Forms: Mostly medium-sized, open bowls, with cleanly turned, squared foot rings. Also, some closed vessels; these appear to be more common with polychrome splash-glazed ware than with green and white splash-glazed ware.

Surface Treatment: Clear, lead glaze covering the interior and exterior, with random splashes, or vertical streaks, of green, yellowish-brown, dark brown, or black. Colours tend to run into one another and to cover the whole of the vessel surface. Unlike SPLASH.GW, no plain white spaces are left between the coloured splashes.

Fabric: Hard, compact, finely levigated, light cream coloured fabric. Beyond these general characteristics, the fabric displays extensive variation with colour ranging from bright cream to light pink, and from compact, and very finely levigated, with no visible inclusions, to a fabric, with a slightly porous structure and abundant coarse inclusions.

Inclusions: For the more heavily tempered version of the fabric see below.

INCLUSIONS		
	1	2
Colour	Red or black	Voids
Size	≤0.5mm	≤0.2mm
Shape	Rounded	Sub-angular
Freq.	5%	3%
Sorting	Fair	Good
ID	Stony grits (volcanic?)	Air pockets

Specifications: Average weight, with a compact structure, a fine or rough gritty feel and a clean, irregular fracture.

Parallels and Dating: Mid-9th–10th century. This is the same as SPL.P with Fabric 84 in the Williamson Collection (Priestman, 2005a: 249, pl. 110). For discussion of dating see SPLASH.GW1 above.

Origin: Closer study of splash-glazed ware fabrics is likely to reveal multiple production centres, as already suggested by the variation in coarse inclusions. By analogy with other categories, such as opaque-glazed ware, turquoise alkaline-glazed wares and eggshell wares, categories with pale cream coloured fabrics are more likely to come from southern Iraq.

Class Code: SPLASH.P2

Class Name: Polychrome Splash-Glazed Ware – Orange Body

Types: SAM-OR1, OR4-5, OR15, OR19, CR4-5, B1, B3, B7-8, B10

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 85

Defining Characteristics: A mixture of open and closed vessels, with a hard, finely levigated, pink to light orange coloured fabric, covered on the interior and exterior with clear, lead glaze, splashed with diffuse zones of green and yellowish-brown, and in very rare cases, dark purplish-brown.

COLOUR		
Colour	Pink	Light red
Core	7.5YR 7/4	2.5YR 6/6
Margin	7.5YR 8/4	Same as core
Surface	Same as margin	Same as core

Integrity: Consistent application of glazing and decoration but with fairly extensive variation in fabric quality, and the nature, and frequency, of coarse inclusions. Several different production centres are represented.

Vessel Forms: Mostly medium-sized, open bowls, with cleanly turned, squared foot rings. There are also some closed vessels and these appear to be more common with polychrome splash-glazed ware, rather than with green and white splash-glazed ware.

Surface Treatment: Clear, lead glaze covering the interior and exterior with random splashes, or vertical streaks, of green and yellowish-brown, often in an alternate arrangement. Occasionally, green and yellow is combined with dark purplish-brown. Colours tend to run into one another and to cover the whole of the vessel surface. Unlike SPLASH.GW, no plain white spaces are left between the coloured splashes.

Fabric: Hard, compact, finely levigated, pink to light orange coloured fabric, generally with no visible inclusions. The fabric displays some variation, particularly in firing colour. Ultimately, the distinction made here between 'cream coloured' and 'orange coloured' fabrics (SPLASH.P1 and SPLASH.P2) may be rather arbitrary and would be better dealt with by sub-dividing the class on the basis of specific fabric composition. A larger sample would be required in order to undertake this exercise and it remains uncertain whether the fabric could be accurately classified simply on the basis of macroscopic examination.

INCLUSIONS		
	1	2
Colour	Buff	Voids
Size	≤0.5mm	≤0.1mm
Shape	Sub-rounded	Sub-rounded
Freq.	Occasional	Occasional
Sorting	Fair	Good
ID	Limestone?	Air pockets

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Parallels and Dating: Mid-9th–10th century. This is the same as SPL.P with Fabric 85 in the Williamson Collection (Priestman, 2005a: 249, pl. 110). For discussion of dating see SPLASH.GW1 above.

Origin: Southern Iran.

Early Sgraffiato

Class Code: GRAF.EP1

Class Name: Early Polychrome Splashed Sgraffiato – Cream Body

Types: SAM-OR1, OR4-5, OR7, OR13, OR19, B1, B3, B7

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 86

Defining Characteristics: Hard, finely levigated, pink coloured fabric, with few visible inclusions and a tight structure that appears slightly grainy under magnification. Vessels are all open bowls, with simple, or gently everted, rims and squared, or rounded, foot rings. Interior and exterior surfaces are covered by a white slip, with splashed colours, mostly in green and yellow and occasionally purple/brown, under a transparent glaze that continues over the foot and base. Interior surfaces are also decorated with broad incised lines (1mm) cutting though the white slip to reveal the darker body below. Apart from the incised decoration, GRAF.EP is very closely related stylistically to SPLASH.P.

COLOUR		
Colour	Reddish-yellow	Pink
Core	5YR 6/6	7.5YR 7/4
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: Stylistically coherent and well defined but some variation in fabric (see below), indicating that there were several production centres for this class.

Vessel Forms: Mostly medium-sized, open bowls, including vessels with simple, straight, or everted rims, and low dishes with wide flange rims. The majority of vessels have squared, or rounded, foot rings though some dishes have a flat base.

Surface Treatment: Interior and exterior surfaces covered by a white slip and clear, lead glaze splashed with diffuse zones of bottle-green, yellowish-brown and sometimes dark purple interspersed with clear areas of white. The colours tend to run into one another and intermix. Where purple is used, it tends to be used as a separator between the white background and other colours. The commonest colour scheme is green, yellow and white with green predominating, but there are pieces where yellow predominates and others with the full set of colours that includes purple. Purple never appears on pieces that do not also have green and yellow. Incised decoration consists of broad lines (1mm) generally consisting of borders below the rim filled with oblique slashes, and formal registers filling the rest of the body.

Fabric: Typically, the fabric is hard, compact, and very finely levigated, with no visible inclusions and fired to a consistent orange or pink. Under low magnification the fresh section often has a distinctive, fine, grainy, or 'furry', appearance. Other clearly distinct fabrics have also been included within the class, usually as one-offs. These include a piece with profuse, red, stony inclusions, some pieces with a fine, grainy, cream coloured fabric, and no visible inclusions, and several other categories. These groups can only be differentiated by looking at the fresh section break and would be better handled through a program of systematic thin-section analysis with access to a large sample. It is a notable feature that some of the more unusual forms, such as flange-rimmed dishes and other one-off forms, are often also accompanied by fabric that is atypical.

Inclusions: None or varied.

Specifications: Average density, with a compact structure, a smooth feel and a fine, irregular fracture.

Parallels and Dating: Early 10th–mid-11th century. At Siraf, GRAF.EP (Style I Sgraffiato) was introduced as one of the later elements in the Samarra horizon, probably during the early 10th century (Whitehouse, 1979b: 59). Certain changes, that occurred in the style and production of sgraffiato in the later 11th century, allow one to distinguish GRAF.EP from the later styles of sgraffiato (Kennet, 2004: 34).

Origin: Southern Iran.

Class Code: GRAF.EP2

Class Name: Early Polychrome Splashed Sgraffiato – Orange Body

Types: SAM-OR1, OR4-5, OR7, OR19, B1, B3, B7

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 87

Defining Characteristics: Hard, well levigated, typically light orange coloured fabric, with abundant, fine, rolled, spherical, quartz inclusions. Vessels are all open bowls, with simple, or gently everted, rims and squared, or rounded, foot rings. Interior and exterior surfaces are covered in a white slip and splashed with green and yellow decoration under a transparent glaze that continues over the foot and base. Interior surfaces are further decorated with fine incised lines (0.5mm) cut though the white slip to reveal the darker body below. Apart from the incised decoration, GRAF.EP2 is very closely related stylistically to SPLASH.P2.

COLOUR	
Colour	Pink
Core	7.5YR 8-7/4
Margin	Same as core
Surface	Same as core

Integrity: Coherent class with well defined consistent traits. GRAF.EP2 can only be reliably distinguished from GRAF.EP1 through examination of the fresh section break seen under low magnification. At the same time, there appear to be a number of further factors that differentiate these classes, including the generally pale quality of the body, the fine, swirling, incised decoration and the absence of purple as part of the colour repertoire.

Vessel Forms: Mostly medium-sized, open bowls including vessels with simple, straight, or everted, rims and squared, or rounded, foot rings.

Surface Treatment: Interior and exterior surfaces covered by a white slip and clear, lead glaze splashed with diffuse zones of bottle-green and yellowish-brown, interspersed by clear areas of white. The colours tend to run into one another and intermix. Incised decoration consists of fine lines (0.5mm), generally comprising borders below the rim filled with oblique slashes, and swirling motifs filling the rest of the body.

Fabric: Hard, compact, very finely levigated, light orange coloured fabric that consistently contains a background of rolled, spherical, quartz inclusions and occasional flecks of limestone. Otherwise similar in composition to the fabric of GRAF.EP1.

INCLUSIONS		
	1	2
Colour	Opaque white	Voids
Size	≤0.5mm	≤0.2mm
Shape	Well rounded	Rounded
Freq.	5%	3%
Sorting	Very good	Fair
ID	Rolled quartz	Air pockets

Specifications: Average weight, with a compact structure, a smooth feel and a fine, irregular fracture.

Parallels and Dating: Early 10th–mid-11th century. At Siraf, GRAF.EP (Style I Sgraffiato) was introduced as one of the later elements in the Samarra horizon, probably during the early 10th century (Whitehouse, 1979b: 59). Certain changes that occurred in the style and production of sgraffiato in the later 11th century allow one to distinguish GRAF.EP from the later styles of sgraffiato (Kennet, 2004: 34).

Origin: Southern Iran.

Class Code: GRAF.EG

Class Name: Early Monochrome Green Sgraffiato

Types: See GRAF.EP2

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 88

Defining Characteristics: Hard, finely levigated, orange coloured fabric, with few visible inclusions and a tight structure that appears slightly grainy under low magnification. Vessels are all open bowls, with simple rims and squared foot rings. Interior and exterior surfaces are covered by white slip and a transparent, bottle-green coloured, lead glaze, which continues over the foot and base. Interior surfaces are decorated with broad incised lines (1mm) cutting though the white slip to reveal the darker body below.

COLOUR	
Colour	Reddish-yellow
Core	5YR 7-6/6
Margin	Same as core
Surface	Same as core

Integrity: Stylistically coherent and well defined but with some variation in fabric (see below), indicating that there may have been several production centres for this class.

Vessel Forms: Mostly medium-sized, open bowls, including vessels with simple, gently everted rims and squared foot rings.

Surface Treatment: Interior and exterior surfaces covered by a white slip and clear, bottle-green coloured, lead glaze. One of the characteristic features of GRAF.EG glazing is the 'soft' quality of the surface sheen. Vessel interiors can be left plain but are more often incised with broad lines (1mm). Incised decoration is similar in style to that associated with GRAF.EP1, with double straight borders

below the rim filled with oblique slashes, and free-flowing swirling motifs occupying the rest of the body.

Fabric: GRAF.EG fabric displays similar characteristics to that associated with GRAF.EP1. Typically, this is hard, compact, and very finely levigated, with no visible inclusions, and fired to a strong, consistent pink or orange. Under low magnification the fresh section often has a distinctive fine, grainy, or 'furry', appearance. Other clearly distinct fabrics have also been included within the class, usually as one-offs. These include pieces with a fine, grainy, cream coloured fabric and no visible inclusions together with several other categories.

Inclusions: Generally, none.

Specifications: Average density, with a compact structure, a smooth feel and a fine, irregular fracture.

Parallels and Dating: Early 10th–mid-11th century. Generally, monochrome green-glazed sgraffiato has been associated with the late sgraffiato tradition of the mid-11th–13th centuries. GRAF.EG has a monochrome green glaze but other features show that it clearly belongs within the early sgraffiato tradition, including the repertoire of traditional 'Samarra horizon' forms, glazing on the interior and exterior, and decoration clearly linked stylistically to GRAF.EP1-2. For a discussion of the relevant dating see GRAF.EP1 above.

Origin: Southern Iran.

Class Code: GRAF.EY

Class Name: Early Monochrome Yellow Sgraffiato

Types: See GRAF.EP2

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 89

Defining Characteristics: Hard, finely levigated, orange or cream coloured fabric, with few visible inclusions. Vessels are mostly open bowls, with simple rims and squared foot rings. Interior and exterior surfaces are covered with a white slip and a transparent, yellowish-brown coloured, lead glaze, which continues over the foot and base. Interior surfaces are decorated with broad, incised lines (1mm) cutting though the white slip to reveal the darker body below.

COLOUR		
Colour	Reddish-yellow	Very pale brown
Core	5YR 7-6/6	10YR 7/4
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: Stylistically coherent and well defined but with extensive variation in fabric composition (see below), indicating that there were several production centres for this class.

Vessel Forms: Mostly medium-sized, open bowls including vessels with simple, gently everted rims and squared foot rings. There are also some closed vessels.

Surface Treatment: Interior and exterior surfaces covered with a white slip and a clear, bright, yellowish-brown coloured, lead glaze. As with GRAF.EG, one of the characteristic features of the glazing is the 'soft' quality of the surface sheen. Vessel interiors can be left plain or are more often incised with broad lines (1mm). Incised decoration is similar in style to that associated with GRAF.EP1, with double straight borders below the rim filled with oblique slashes, and free-flowing swirling motifs occupying the rest of the body.

Fabric: Typically, the fabric is hard, compact, and very finely levigated, with no visible inclusions, and fired to a strong, consistent orange. Other clearly distinct fabrics are also represented within the class, including some fired to a cream colour and ones with a range of different, fine, grit tempers, including some with the same distinctive fabric associated with GRAF.EP2.

Inclusions: Typically, none, though see above.

Specifications: Average density, with a compact structure, a smooth feel and a fine, irregular fracture.

Parallels and Dating: Early 10th–mid-11th century. Generally, monochrome yellow-glazed sgraffiato has been associated with the late sgraffiato tradition of the mid-11th–13th centuries. GRAF.EY has a monochrome, yellow glaze, but other features show that it clearly belongs within the early sgraffiato tradition including the repertoire of traditional 'Samarra horizon' forms, glazing on the interior and exterior, and decoration clearly linked stylistically to GRAF.EP. For a discussion of the relevant dating see GRAF.EP1 above.

Origin: Southern Iran.

Class Code: GRAF.TL

Class Name: Thin-Lined Sgraffiato

Types: See GRAF.EP2

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 90

Defining Characteristics: Hard, finely levigated, pink coloured fabric, with few visible inclusions. Vessels are all open, medium-sized bowls, with relatively thick walls, simple, gently everted rims and squared foot rings. Interior and exterior surfaces are covered with a white slip and an almost completely degraded glaze. The original glaze colouring is not clear. The most distinctive feature of the class is the fine, intricate, incised decoration, which is cut quite deeply into the body.

COLOUR	
Colour	Pink
Core	7.5YR 7/4
Margin	Same as core
Surface	Same as core

Integrity: Coherent class defined largely on the basis of its degraded condition. With better glaze preservation it is not clear which category these pieces would fall into. Notably, the same category has been identified in the Williamson Collection and from Kush and Siraf.

Vessel Forms: Medium-sized, open bowls, with relatively thick walls, gently everted rims and squared foot rings, or a flat base.

Surface Treatment: Interior and exterior surfaces are covered with a white slip and a coloured, lead glaze, which continues over the foot and base. The glaze is almost completely degraded. Interior surfaces are incised with particularly intricate and very fine-lined sgraffiato (0.2mm) cut quite deeply into the body. The most typical motif is a series of feathered scrolls contained within vertically delimited registers.

Fabric: Generally consistent fabric, which is hard, compact, and very finely levigated, with no visible inclusions, and fired to a strong consistent pink. The fabric is similar, though perhaps not identical, to the main fabric associated with GRAF.EP1.

Inclusions: Generally, none.

Specifications: Average density, with a compact structure, a smooth feel and an irregular, somewhat blocky fracture.

Parallels and Dating: Early 10th–mid-11th century. This is the same as GRAF.TL in the Williamson Collection (Priestman, 2005a: 250-51). There are no known dated parallels for this class, however, the fine nature of the incised decoration, and the slip and glaze covering both the interior and exterior, places this group within the earlier sgraffiato tradition dated most clearly by GRAF.EP; see discussion above.

Origin: Southern Iran.

Late Sgraffiato

Class Code: GRAF.H

Class Name: Hatched Sgraffiato

Types: SGR-OR1-9, OR12-15, B1-2, CR1

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 91

Defining Characteristics: Hard, compact, finely levigated, orange coloured fabric, with no visible inclusions. Vessels are medium-sized, open bowls and dishes. Interiors, and upper rim exteriors, are covered by a white slip and a transparent, glossy, or monochrome, green, lead glaze. Interiors are further decorated with incised sgraffiato cut through the white slip to reveal the darker body below. Plain, clear-glazed vessels generally have isolated splashes of green, yellowish-brown and dark purplish-brown.

COLOUR	
Colour	Red
Core	2.5YR 5/6
Margin	Same as core
Surface	Same as core

Integrity: Very coherent and distinctive class.

Vessel Forms: Medium-sized, open bowls and dishes, with a wide range of delicately finished rims, including types with fine scalloped lips, and bases that are flat and slightly concave, or flat with an incised recess. Vessel forms conform to a standard range of types.

Surface Treatment: Interior and upper rim exteriors covered by a white slip and a colourless, or green, shiny, lead glaze. Interiors of colourless vessels have isolated splashes of green, brownish-yellow and dark purplish-brown, separated by blank areas of white. Splashed colours cover approximately 60% of the interior surface. Incised decoration is with medium-thick lines (0.7mm) and tends to be arranged as a horizontal register filling the sides, and a round panel occupying the bases, delimited by sets of straight, incised bands. Plain, non-incised zones are left between the two panels and below the rim. Incised decoration consists mostly of pseudo-calligraphic motifs in more-or-less abstract style, with either the 'letters', or the background to the 'letters', filled with closely spaced hatching (*c*. 1mm interval). Hatched incisions are made with a slightly finer stylus (*c*. 0.5mm) than the main elements of the decoration.

Fabric: Extremely consistent fabric. Hard and compact, with no visible inclusions, and fired to a consistent, strong orange-brown. Under low magnification, the fresh section break reveals a distinctive yellow mottling or micro-lime-spalling. This feature is consistently present throughout the sample.

INCLUSIONS	
	1
Colour	Buff-yellow
Size	≤0.1mm
Shape	Well rounded
Freq.	7–10%
Sorting	Good
ID	Lime-spalling?

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Parallels and Dating: Mid-11th–12th century. GRAF.H is equivalent to Whitehouse's Style III Sgraffiato from Siraf, which occurs in levels post-dating a coin hoard of AD 1026–7 (Whitehouse, 1970: 6). The pottery occurs over a more limited area of the surface at Siraf than the maximum extent of the city dated to the 9th–10th century and has therefore been used as a primary 'type-fossil of decline' (Whitehouse, 1975: 265). There are 47 sherds of GRAF.H at Kush within the phased sequence from Phase E-06 onwards, though peaking in Phase E-08–E-09 suggesting an 11th–12th century date range (Kennet, 2004: 35, table 3). This dating appears to be supported by the evidence from Shanga, where the equivalent Group 5a class occurs principally between Phases 10–14 of the Trench 6-10 sequence, placing it in a date range of AD *c*. 1000–1150 (Horton, 1996b: 289, table 14). GRAF.H is widely distributed around the western Indian Ocean, occurring in East Africa at Shanga (Horton, 1996b: 284, fig. 206: a-l), Manda (Chittick, 1984: pl. 32: a-b), Kilwa (Chittick, ii.1974: pl. 11: d) and Andaro (Priestman, 2010b); on the south coast of Yemen at Sharma (Rougeulle, 2005: 228, figs 3: 1-19; 4: 1-11) and al-Shihr (Hardy-Guilbert, 2001: fig. 4: top right); and in Oman at Ras al-Hadd (Whitcomb, 1975: 126, fig. 8: a-g, l, n-q, s), Sohar (Cleveland, 1959: fig. 4: 6; Williamson, 1973b: 19; Kervran, 2004: figs 29: 12; 33: 1-3; 34: 8-13; 36: 2, 7-11), 'Arja mine complex (Costa and Wilkinson, 1987: 88, 227) and Old Ghubb 'Ali (de Cardi, 1975: fig. 9: 102-03).

Origin: Tiz, Makran coast, southeast Iran. Stein's test excavation of a waster pile associated with a production site at Tiz produced a large concentration of stylistically uniform hatched sgraffiato (Stein,

1937: 90-91, pl. IV) identical to the material from Siraf and the other finds from East Africa, Yemen and Oman.

Class Code: CHAMP

Class Name: Champlevé Sgraffiato

Types: See GRAF.H

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 92

Defining Characteristics: Hard, compact, finely levigated, orange coloured fabric, with no visible inclusions. Interiors, and upper rim exteriors, are covered by a white slip and a transparent, glossy, lead glaze. Interiors are further decorated with broad, shaved strips cut out of the slip, or more complex cut designs. These elements are generally combined with conventional sgraffiato.

COLOUR	
Colour	Light red
Core	2.5YR 6/6
Margin	Same as core
Surface	Same as core

Integrity: Coherent and distinctive class.

Vessel Forms: Mostly medium-sized, open bowls.

Surface Treatment: Interior surfaces are covered by a white slip and a clear, shiny, yellow-tinted, lead glaze that steps onto the rim exterior. Decoration typically consists of *c*. 15mm wide lines shaved out of the white slip, that radiate in an irregular fashion from the interior. This champlevé decoration is often combined with incised sgraffiato lines forming horizontal bands around the top of the rim, or the base interior, or lines running parallel, or in complementary alignments to the shaved elements. Some vessels have a thin wash of green pigment following the top of the rim flange. Other forms of champlevé, that appear less common, include more complex cut away pseudo-calligraphic, or floral, designs, again generally combined with sgraffiato elements.

Fabric: Hard and compact, with no visible inclusions and fired to a consistent, strong orange-brown.

Inclusions: Mostly none.

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Parallels and Dating: Mid-11th–13th century. Champlevé appears to be a relatively common element of the assemblage on the East African coast; occurring at Manda and Kilwa as one of the principal sgraffiato types of the 11th–13th centuries (Chittick, 1984: 79, pl. 32: c, f; Chittick, ii.1974: 303, pl. 111: c-d) and at Shanga from Phase 11–16 of Trench 6-10, again dated to the 11th–13th centuries (Horton 1996b: 'Group 5b', 284, table 14). At Kush, a small quantity appears from Phase E-10, dated to the late 13th century or later (Kennet, 2004: 37-38, table 3). There are relatively small quantities of the class represented in the assemblages from Siraf, the Williamson Collection and at Kush compared with those form East Africa and South Arabia, indicating that CHAMP was probably more common as an export ware.

Origin: Tiz, Makran coast, southeast Iran. Stein's test excavation of a large mound of firing debris adjacent to a production area that he identified at the port site of Tiz, on the Makran coast, produced a significant concentration of CHAMP and GRAF.H of a particularly uniform and recognisable style (Stein, 1937: 90-91). Similar material, with pseudo-calligraphic radial shavings, occurs at the neighbouring site of Qalat-i-Jamshid (Stein, 1937: pl. IV) and this appears to be the same as that represented on the majority of the sherds from East Africa and South Arabia. Variations within the Champlevé assemblage in the Williamson Collection suggest that there may also have been other production centres using the same technique and this seems to be further supported by the evidence from Siraf.

Class Code: GRAF.DI

Class Name: Deeply Incised Splashed Sgraffiato

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 93

Defining Characteristics: Small, deep, straight-sided bowls, either with projecting collars just below the rims, or gently everted lips. Both the interior and exterior are covered in a white slip with bright green and brown splashes, and a clear, lead glaze. The most distinctive aspect of the class is the type of incised decoration, which includes areas where the surface has been deeply cut away, framed by conventional sgraffiato. The fabric is hard, well levigated, and fired to orange or pink.

COLOUR	
Colour	Light reddish-brown
Core	5YR 6/4-6
Margin	Same as core
Surface	Same as core

Integrity: Coherent and distinctive class, albeit generally represented only by occasional examples.

Surface Treatment: Interior and exterior surfaces covered by a white slip and a clear, shiny, lead glaze with splashes of bright green and brown covering the entire vessel surface. Exteriors are decorated with triangles cut deeply into the surface framed by regular sgraffiato.

Vessel Forms: Small, deep, straight-sided bowls, with gently everted, or short projecting, flange lips.

Fabric: Hard and compact, with no visible inclusions, and fired to a consistent, strong orange-brown.

Inclusions: None.

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Parallels and Dating: Mid-11th–13th century. Appears to be the same as Type 5p from Shanga, small quantities of which occur between Phase 11–17 in Trench 6-10, dated to the 11th–14th centuries (Horton, 1996b: 286, table 14, fig. 209: a-b). The 14th century sherds are probably residual as the GRAF tradition went out of production by the end of the 13th century. The same class has also been noted in Period II contexts dated to the 12th–13th centuries at Manda (Chittick, 1984: pl. 34: a-b).

Origin: Southeast Iran, possibly Tiz.

Class Code: GRAF.LP

Class Name: Late Polychrome Splashed Sgraffiato

Types: See GRAF.H, also SGR-10

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 94

Defining Characteristics: Hard, compact, finely levigated, orange coloured fabric, with no visible inclusions. Vessels are mostly medium-sized, open bowls. Interiors, and upper rim exteriors, are covered by a white slip and a transparent, glossy, lead glaze. Interiors are decorated with simple swirling sgraffiato, of medium line thickness (0.75mm), incised through the white slip to reveal the darker body below. Surfaces are further decorated with isolated splashes of purplish-brown, green and yellowish-brown, separated by plain areas of white.

COLOUR	
Colour	Reddish-yellow
Core	5YR 6/6
Margin	Same as core
Surface	Same as core

Integrity: Coherent and distinctive class.

Vessel Forms: Medium-sized, open bowls and dishes, with a wide range of delicately finished rims, and bases that are flat and slightly concave, or flat with an incised recess. Vessel forms are mostly the same as those associated with GRAF.H. Closed vessel types are also associated with the class.

Surface Treatment: Interior, and upper rim exterior, surfaces are covered by a white slip and a transparent, light yellow tinted glaze. Interiors are also decorated with sparse, swirling sgraffiato. Unlike the early splashed polychrome sgraffiato, splashed colours on GRAF.LP are mostly separated from one another by plain areas of white. Most vessels appear to combine three colours of splashing: purplish-brown, green, and yellowish-brown.

Fabric: Hard, compact, well levigated fabric, with no visible inclusions, fired to a consistent, strong orange-brown. The fabric is darker orange than most pieces of early sgraffiato.

Inclusions: None.

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Parallels and Dating: Mid-11th–13th century. This is the same as GRAF.LP in the Williamson Collection (Priestman, 2005a: 253). Stylistically, in terms of the palate and application of colour, and typologically, in terms of vessel forms, GRAF.LP appears to be very closely related to GRAF.H and should, on this basis, share the same dating. At Kush, 17 sherds of GRAF.LP occur within the phased sequence from Phase E-09, four phases after the first introduction of GRAF.H (Kennet, 2004: 37, table 3). It has not yet been established whether this is a typical chronological distribution for the class.

Origin: Southern Iran.

Class Code: GRAF.GW

Class Name: Green on White Splashed Sgraffiato

Types: See GRAF.H

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 95

Defining Characteristics: Hard, compact, finely levigated, orange coloured fabric, with no visible inclusions. Vessels are mostly medium-sized, open bowls. Interiors, and upper rim exteriors, are covered by a white slip and a transparent, glossy, lead glaze. Interiors are typically decorated with simple, relatively thick-lined sgraffiato (0.75–1mm), cut through the white slip to reveal the darker body below. This is combined with green colour splashes, often as a band around the rim interior, and also as patches across limited areas of the interior. The decoration scheme is closely related to GRAF.LP but only includes green splashes generally in combination with large areas of white.

COLOUR	
Colour	Reddish-yellow
Core	5YR 6/6
Margin	Same as core
Surface	Same as core

Integrity: Coherent and fairly distinctive group, though with an obvious overlap with GRAF.LP. Sherds of the latter group, lacking colours other than green, would be assigned to this group, making the distinction somewhat arbitrary.

Vessel Forms: Medium-sized, open bowls and dishes, with a wide range of delicately finished rims, and bases that are flat and slightly concave, or flat with an incised recess. Vessel forms are mostly the same as those associated with GRAF.H.

Surface Treatment: Interior, and upper rim exterior, surfaces are covered by a white slip and transparent, light yellow tinted glaze. Interiors are also decorated with simple sgraffiato, and with limited use of green splashes on white.

Fabric: Hard, compact, well levigated fabric, with no visible inclusions, fired to a consistent, strong orange-brown.

Inclusions: None.

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Parallels and Dating: Mid-11th–13th century. The class is closely related to GRAF.LP and therefore it is likely to share the same dating (see above).

Origin: Southern Iran.

Class Code: GRAF.GYB

Class Name: Green, Yellow and Brown Splashed Sgraffiato

Types: See GRAF.H

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 96

Defining Characteristics: Hard, compact, finely levigated, orange coloured fabric, with no visible inclusions. Vessels are mostly medium-sized open bowls. Interiors, and upper rim exteriors, are covered by a white slip and a transparent glossy lead glaze. Interiors are typically decorated with simple, relatively thick-lined sgraffiato (0.75-1mm), cut through the white slip to reveal the darker body below. This is combined with continual merging splashes of mostly of green and yellow, often combined with patches of brown where there are breaks in the underlying white slip cover. The class is similar to GRAF.LP but is distinguished by the general lack of separation between the colours, which renders an appearance more similar to the early polychrome splashed sgraffiatos.

COLOUR	
Colour	Reddish-yellow
Core	5YR 6/6
Margin	Same as core
Surface	Same as core

Integrity: Coherent and distinctive class.

Vessel Forms: Medium-sized open bowls and dishes, with a wide range of delicately finished rims, and bases that are flat and slightly concave, or flat with an incised recess. Vessel forms are mostly the same as those associated with GRAF.H. Closed vessel types are also associated with the class.

Surface Treatment: Interior, and upper rim exterior, surfaces are covered by a white slip and transparent light yellow tinted glaze. Interiors are also decorated with sparse swirling sgraffiato and continuous, merging splashes, mostly of green and yellow.

Fabric: Hard, compact, well levigated fabric, with no visible inclusions, fired to a consistent, strong orange-brown.

Inclusions: None.

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Parallels and Dating: Mid-11th–13th century. The class is closely related to GRAF.LP and therefore it is likely to share the same dating (see above).

Origin: Southern Iran.

Class Code: GRAF.S

Class Name: Slip-Painted Sgraffiato

Types: See GRAF.H

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 97

Defining Characteristics: Small, open bowls, with a finely levigated fabric, fired to consistent pink or orange. Interiors are covered in white slip and a transparent, shiny, lead glaze. The characteristic feature of the class is the decoration, which is comprised of small slip-painted spots placed between double incisions. Exteriors are mostly plain, though some pieces have white slip stepping onto the exterior.

COLOUR	
Colour	Reddish-yellow
Core	5YR 6/6
Margin	Same as core
Surface	Same as core

Integrity: Coherent and distinctive class that falls somewhere between the GRAF and SPW traditions.

Surface Treatment: Well spaced diffuse splashes of green and brown, combined with finely incised decoration cut through the slip to reveal a darker body below. Incised lines are often cut in parallel grooves with small, regularly spaced, slip-painted spots placed in the space between.

Vessel Forms: Small, thin-walled bowls, with gently everted rims, or everted flange rims, and flat bases with turned rings, or a concave recess.

Fabric: Hard, compact, well levigated fabric, with no visible inclusions, fired to a consistent, strong pink or orange.

Inclusions: None.

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Parallels and Dating: Mid-11th–13th century. No known parallels exist for this class although it appears to be related to the SPW tradition. At the same time, the class displays features typical of the late GRAF tradition of the mid-11th–13th centuries, such as the unglazed exterior, and the Iranian-style fabric and forms.

Origin: Southern Iran.

Class Code: GRAF.G

Class Name: Monochrome Green Sgraffiato

Types: See GRAF.H also SGR-OR11

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 98

Defining Characteristics: Hard, compact, finely levigated, orange coloured fabric, with no visible inclusions. Interiors, and upper rim exteriors, are covered by a white slip and a glossy, monochrome, green, lead glaze and simple, fairly sparse, swirling sgraffiato cut through the white slip to reveal the darker body below.

COLOUR	
Colour	Reddish-yellow
Core	5YR 6/6
Margin	Same as core
Surface	Same as core

Integrity: Generally consistent but with some variation in glaze colour; ranging from bright emerald-green to dull brownish-, or yellowish-green. There is also some variation in the fabric, indicating multiple production centres for this class.

Vessel Forms: Mostly medium-sized, open bowls, with simple rims and a flat, slightly concave base. Some closed vessel types are also represented but more commonly these lack sgraffiato (see MONO.G below).

Surface Treatment: Covered in a white slip and glossy, monochrome, green, lead glaze over the interior, and upper exterior, combined with crude, broad-lined sgraffiato (1mm) decoration, consisting mostly of loose swirls.

Fabric: Generally hard and compact, with no visible inclusions, fired to a consistent, strong orange-brown. There are also pieces included within the class with a different cream coloured fabric and some coarse inclusions. The main fabric group appears to be similar, or the same as that associated with GRAF.LP.

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Inclusions: Mostly none.

Parallels and Dating: Mid-11th–13th century. This is equivalent to GRAF.G in the Williamson Collection and GGRAF from Kush (Priestman, 2005a: 255-56; Kennet, 2004: 35-36). The class occurs in abundance within the Kush sequence from Phase E-08 onwards, indicating an appearance in the late 11th century (Kennet, 2004: table 3). This date range is supported by evidence from East Africa. At Shanga, Groups E, F and G, though F in particular, appear to belong to this class, which first appears in the sequence from Phase 10, dated to the 11th century (Horton, 1996b: 284, 286, table 14). At Manda and Kilwa, GRAF.G forms an important element of the 'simple Sgraffiato' assemblage, which together with other 'late Sgraffiatos', dominate the Period 2 and Ib assemblages of the mid-11th–late 13th centuries (Chittick, 1984: 79; Chittick, ii.1974: 303). Possible causes that have been given for the decline of sgraffiato at the

end of the 13th century include the mass import of Longquan Celadon from China, or the disruptive influence of the Mongol invasion on ceramic production in southern Iran (Morgan, 1991: 78).

Origin: Southern Iran.

Class Code: GRAF.Y

Class Name: Monochrome Yellow Sgraffiato

Types: See GRAF.H also SGR-OR11

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 99

Defining Characteristics: Hard, compact, finely levigated, orange coloured fabric, with no visible inclusions. Interiors, and upper rim exteriors, are covered by a white slip and a glossy monochrome yellow lead glaze and simple, fairly sparse, swirling sgraffiato cut through the white slip to reveal the darker body below. The glaze can be either light yellow or a darker honey-yellow, often with brown patches where the underlying slip is thin or absent. The class is closely related to GRAF.M and may potentially be an extension of the same group. The key difference is that it lacks the distinctive freckling associated with that class.

COLOUR	
Colour	Reddish-yellow
Core	5YR 6/6
Margin	Same as core
Surface	Same as core

Integrity: Consistent and distinctive class, though it is not clear if the distinction drawn between this and GRAF.M is meaningful.

Vessel Forms: Mostly medium-sized open bowls, with simple rims and a flat, slightly concave base. Some closed vessel types are also represented but more commonly these lack sgraffiato (see MONO.Y below).

Surface Treatment: Interior surface covered by a white slip and a pale yellowish-green coloured glaze and simple incised sgraffiato cut through the white slip to reveal the darker body below. The sgraffiato is relatively thick lined (1mm) and executed in the same style as GRAF.G.

Fabric: Hard and compact, with no visible inclusions and fired to a consistent strong orange-brown. This appears to be the same fabric associated with the majority of late sgraffiato.

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Inclusions: Mostly none.

Parallels and Dating: Mid-11th–13th century. The class is equivalent to some of the GRAF.M in the Williamson Collection, where GRAF.Y and GRAF.M were treated as a single category (Priestman, 2005a: 257). The class clearly forms part of the late, monochrome, glazed, sgraffiato tradition, which is well

represented in the phased sequence at Kush from Phase E-08 onwards, suggesting an appearance in the later 11th century (Kennet, 2004: 35-36, table 3).

Origin: Southern Iran.

Class Code: GRAF.M

Class Name: Monochrome Mustard Sgraffiato

Types: See GRAF.H

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 100

Defining Characteristics: Hard, compact, finely levigated, orange coloured fabric, with no visible inclusions. Interiors, and upper rim exteriors, of open vessels are covered by a white slip and a rather glossy, monochrome, pale or honey yellow coloured, lead glaze, with fine, dark brown 'mustard' freckling. Interiors can be left plain or have simple, fairly sparse, swirling sgraffiato cut through the white slip to reveal the darker body below.

COLOUR	
Colour	Reddish-yellow
Core	5YR 6/6
Margin	Same as core
Surface	Same as core

Integrity: Consistent and distinctive class, though it is not clear if the distinction drawn between this and GRAF.Y is meaningful.

Vessel Forms: Mostly medium-sized, open bowls, with simple rims, and flat, slightly concave bases. Some closed vessel forms are also represented.

Surface Treatment: Interior, and upper rim exterior, covered by a white slip and transparent, glossy, monochrome, yellow, lead glaze. The glaze ranges in colour from light yellow, with pronounced dark brown freckling, to a deeper, golden yellow, with less freckling evident. Some pieces can appear patchy, with areas of brown where the slip has been applied thinly. Vessels can be plain or have some incised sgraffiato cut through the white slip to reveal the darker body below. Sgraffiato tends to be in thick lines (1mm) executed in the same style as GRAF.G and consists mostly of loose swirls.

Fabric: Hard and compact, with no visible inclusions, and fired to a consistent, strong orange-brown. This appears to be the same fabric associated with the majority of late sgraffiato.

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Inclusions: Mostly none.

Parallels and Dating: Mid-11th–13th century. This is the same as GRAF.M from Kush and some of the GRAF.M in the Williamson Collection (Kennet, 2004: 36; Priestman, 2005a: 257). The class clearly forms part of the late, monochrome, glazed, sgraffiato tradition, which is well represented in the phased

sequence at Kush from Phase E-08 onwards, suggesting an appearance in the later 11th century (Kennet, 2004: 35-36, table 3).

Origin: Southern Iran.

Class Code: MONO.G

Class Name: Monochrome Green-Glazed Ware

Types: See GRAF.H also SGR-11 and H9

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 101

Defining Characteristics: Hard, compact, finely levigated, orange coloured fabric, with no visible inclusions. Interiors, and upper rim exteriors, are covered by a white slip and a clear, slightly glossy, monochrome, green, lead glaze. The class is closely related to GRAF.G but lacks sgraffiato decoration.

COLOUR	
Colour	Reddish-yellow
Core	5YR 6/6
Margin	Same as core
Surface	Same as core

Integrity: Generally consistent but with some variation in glaze colour, ranging from bright emerald-green to dull brownish- or yellowish-green. There is also some variation in the fabric indicating multiple production centres for this class.

Vessel Forms: Mostly medium-sized, open bowls, with simple rims, and flat, slightly concave bases with incised rings. Some closed vessel forms are also represented.

Surface Treatment: Interior, and upper rim exterior, covered by a white slip and a clear, glossy monochrome, green, lead glaze. Often bowls have a single, or double, incised band below the rim.

Fabric: Generally hard and compact, with no visible inclusions, and fired to a consistent, strong orange-brown. There are examples with a different cream coloured fabric and some coarse inclusions. The main fabric group appears to be similar to, or the same as, that associated with GRAF.LP.

Inclusions: Mostly none.

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Parallels and Dating: Mid-11th–13th century. This is the same as MONO.G in the Williamson Collection and is equivalent to GMONO from Kush (Priestman, 2005a: 258-59; Kennet, 2004: 43-44). The class occurs in abundance in the Kush sequence from Phase E-08 onwards, indicating an appearance in the later 11th century (Kennet, 2004: table 3).

Origin: Southern Iran.

Class Code: MONO.Y

Class Name: Monochrome Yellow-Glazed Ware

Types: See GRAF.H also SGR-11

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 102

Defining Characteristics: Hard, compact, finely levigated, orange coloured fabric, with no visible inclusions. Interiors, and upper rim exteriors, of open vessels are covered by a white slip and a rather glossy, monochrome, pale or honey yellow coloured, lead glaze with no sgraffiato added.

COLOUR	
Colour	Reddish-yellow
Core	5YR 6/6
Margin	Same as core
Surface	Same as core

Integrity: Generally consistent but some variation in glaze colour and fabric.

Vessel Forms: Mostly medium-sized, open bowls, with simple rims and flat, slightly concave bases with incised rings. Some closed vessel types are also represented, including necked jars with projecting collars below the rim.

Surface Treatment: Interior, and upper rim exterior, surfaces are covered by a white slip and transparent, glossy, yellow-tinted, monochrome, lead glaze. The glaze often appears patchy, brown and yellow, where the slip has been applied thinly and some of the body shows through. Some examples have a distinctive, splashed, green strip along the rim interior.

Fabric: Hard and compact, with no visible inclusions and fired to a consistent, strong orange-brown. This appears to be the same fabric associated with the majority of late sgraffiatos.

Inclusions: Mostly none.

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Parallels and Dating: Mid-11th–13th century. This is equivalent to MONO.Y in the Williamson Collection (Priestman, 2005a: 259-60). The class clearly forms part of the late, monochrome-glazed sgraffiato tradition, which is well represented in the phased sequence at Kush from Phase E-08 onwards, suggesting an appearance in the later 11th century (Kennet, 2004: 35-36, table 3).

Origin: Southern Iran.

Class Code: GRAF.N-ID

Class Name: Non-Identified/Degraded Late Sgraffiato

Types: None identified

Clay: Earthenware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: Hard, compact, finely levigated, orange coloured fabric, with no visible inclusions. Interiors, and upper rim exteriors, of open vessels are covered by a white slip, a glossy, lead glaze, and sgraffiato decoration cut through the white slip to reveal the darker body below. Pieces are generally too degraded to attribute to one of the sub-class categories of late sgraffiato defined above. In a few cases, there are also pieces with unusual colour schemes that do not fit within the categorisation presented above.

COLOUR	
Colour	Reddish-yellow
Core	5YR 6/6
Margin	Same as core
Surface	Same as core

Integrity: Generally, even small and badly degraded sherds can be confidently attributed to the late sgraffiato tradition on the basis of the fabric and distinctive vessel forms. In the absence of well preserved glaze and decoration however, it is more difficult to ascribe pieces to a specific sub-class.

Vessel Forms: Mostly medium-sized, open bowls, with simple rims, and flat, slightly concave base, or bases with turned recesses and a central boss. Some closed vessel forms are also represented.

Surface Treatment: Interior, and upper rim exterior, covered by a white slip and transparent, glossy, lead glaze with sgraffiato cut through the white slip to reveal the darker body below.

Fabric: Hard and compact, with no visible inclusions and fired to a consistent, strong orange-brown.

Specifications: Average density, with a compact structure, a fine, gritty feel and a clean, irregular fracture.

Inclusions: Mostly none.

Parallels and Dating: Mid-11th–13th century (see discussion of other categories above).

Origin: Southern Iran.

Slip-Painted Ware

Class Code: SPW.BG

Class Name: Slip-Painted Ware with White and Black on a Brown Ground

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 103

Defining Characteristics: Fine, hard, orange-bodied ware, with a solid, dark, chestnut coloured slip ground, over-painted with white and covered by a transparent, glossy, lead glaze, which is often completely degraded leaving a matt surface with the decoration and slip preserved. The most common form is an open bowl, with a gently everted rim. A significant portion of the vessels are also closed forms.

COLOUR		
Colour	Reddish-yellow, light brown	Red
Core	7.5YR 6/6	2.5YR 6/6
Margin	Same as core	Same as core
Surface	7.5YR 6/4	2.5YR 6/6.5

Integrity: Consistent group that contrasts with the other SPW sub-classes both in terms of ground slip colour and in style of decoration.

Surface Treatment: Mostly white painted lines and dots contrasted against the dark slip ground. The patterns are loose and fluid. Rings of dots or arching solid strips are particularly common. Quite large blank zones are often left between more intricate elements of patterning.

Vessel Forms: Open bowls, with simple, gently everted rims and flat, slightly concave bases, or squared foot rings. Also closed jars with rounded bodies, thickened, folded, or everted, lips and flat bases.

Fabric: Finely levigated, hard, orange earthenware, with a brittle, slightly powdery structure and a smooth feel. The fabric has occasional small, and varied inclusions, mostly opaque, white flecks and some micaceous elements, but these are both rare and rather insignificant.

INCLUSIONS	
	1
Colour	Opaque white
Size	<0.5mm
Shape	Sub-angular
Freq.	≤2%
Sorting	Fair
ID	Lime flecks

Specifications: Average density, with a compact and slightly porous structure, a soft, gritty feel and a fine fracture.

Parallels and Dating: 10th–12th century. Test excavation in the potters' quarter at Sirjan produced a mass of 10th–11th century slip-painted pottery manufactured at the site, including examples of this sub-class associated with production in southern Iran (Williamson, 1971e: 177; Williamson, 1972: 27).

Origin: Southern Iran.

Class Code: SPW.YB

Class Name: Slip-Painted Ware with Yellow and Brown on a White Ground

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 104

Defining Characteristics: Fine, hard, orange-bodied ware, with a solid white slip ground, over-painted with brown, washes of yellow, and occasional highlights of green, covered by a transparent, glossy, lead glaze, which is often completely degraded leaving a matt surface with the decoration and slip preserved. The most common form is an open bowl with a gently everted rim.

COLOUR		
Colour	Reddish-yellow, light brown	Red
Core	7.5YR 6/6	2.5YR 6/6
Margin	Same as core	Same as core
Surface	7.5YR 6/4	2.5YR 6/6.5

Integrity: Consistent grouping that contrasts with the other SPW sub-classes, though there is some potential overlap with SPW.BW (see below).

Surface Treatment: Covered over the interior with a white slip ground over-painted with brown, washes of yellow, and occasional highlights of green. Decorative elements include pseudo-calligraphic designs in dark paint, framed by black zones, and panels of hatching or dots. Colours are slightly diffuse but thin lines can be reasonably sharp.

Vessel Forms: Various open bowls, with everted rims and flat, slightly concave bases or squared foot rings. Also, some larger, heavy-rimmed dishes and closed jar forms.

Fabric: Finely levigated, hard, orange earthenware, with a brittle, slightly powdery structure and a smooth feel. The fabric has occasional small and varied inclusions, mostly opaque, white flecks and some micaceous elements, but these are both rare and rather insignificant.

INCLUSIONS	
	1
Colour	Opaque white
Size	<0.5mm
Shape	Sub-angular
Freq.	≤2%
Sorting	Fair
ID	Lime flecks

Specifications: Average density, with a compact and slightly porous structure, a soft, gritty feel and a fine fracture.

Parallels and Dating: 10th–12th century. Test excavation in the potters' quarter at Sirjan produced a mass of 10th–11th century slip-painted pottery manufactured at the site, including examples of this sub-class associated with production in southern Iran (Williamson, 1971e: 177; Williamson, 1972: 27).

Origin: Southern Iran.

Class Code: SPW.BW

Class Name: Slip-Painted Ware with Brown on a White Ground

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 105

Defining Characteristics: Fine, hard, red-bodied bowls, with a white slip ground over-painted by brown or black lines, which would have been covered by a clear, lead glaze. Most examples have completely lost their original glaze leaving the surfaces with a soft, dry feel. The style of decoration is similar to SPW.YB.

COLOUR		
Colour	Reddish-yellow, light brown	Red
Core	7.5YR 6/6	2.5YR 6/6
Margin	Same as core	Same as core
Surface	7.5YR 6/4	2.5YR 6/6.5

Integrity: Some of the material may originally have had splashes of yellow (some pieces have vague traces), which would put them within the SPW.YB sub-class. In fact, the whole group may be SPW.YB in a degraded state. However, the degradation is so consistent that it appears most likely that this is a distinct stylistic group.

Surface Treatment: Covered over the interior with a white slip ground over-painted with brown, or black, pseudo-calligraphic, and other scrawling line, motifs framed by solid bands, which often follow the rim or run just below.

Vessel Forms: Open bowls, with simple, gently everted rims and flat, slightly concave bases, or squared foot rings.

Fabric: Finely levigated, hard, orange earthenware, with a brittle, slightly powdery structure and a smooth feel. The fabric has occasional small and varied inclusions, mostly opaque, white flecks and some micaceous elements, but these are both rare and rather insignificant.

INCLUSIONS	
	1
Colour	Opaque white
Size	<0.5mm
Shape	Sub-angular
Freq.	≤2%
Sorting	Fair
ID	Lime flecks

Specifications: Average density, with a compact and slightly porous structure, a soft, gritty feel and a fine fracture.

Parallels and Dating: 10th–12th century. Test excavation in the potters' quarter at Sirjan produced a mass of 10th–11th century slip-painted pottery manufactured at the site, including examples of this sub-class associated with production in southern Iran (Williamson, 1971e: 177; Williamson, 1972: 27).

Origin: Southern Iran.

Class Code: SPW.N-ID

Class Name: Slip-Painted Ware Non-Identified/Degraded

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: Mostly open bowls, with a fine, hard, orange fabric, covered over the interior and rim exterior with white slip and painted decoration, most often with dark elements in black and brown, sometimes with other colours added. Pieces within this category can be too degraded to assign to one of the other, better-defined sub-classes or they are of a different style with insufficient material to define a further category clearly. There are many regional styles of slip-painted wares and only a few of those are separately distinguished here.

Integrity: All clearly belong within the slip-painted ware tradition, but pieces are either too degraded to assign to a specific sub-class or are of an as-yet uncategorised style.

Surface Treatment: Generally, the interior, and rim exterior, have a white slip ground, a clear, lead glaze and painted decoration in brown, black, and sometimes other colours.

Vessel Forms: Mostly open bowls.

Fabric: Finely levigated, hard, orange earthenware, generally with few coarse inclusions.

Inclusions: Generally, none.

Specifications: Average density, with a compact and slightly porous structure, a soft, gritty feel and a fine fracture.

Parallels and Dating: 10th–12th century (see above).

Origin: Southern Iran.

Frit-Bodied Ware

Class Code: FRIT.EM

Class Name: Early Monochrome Frit

Types: FRI-OR1, B1

Clay: Frit **Production**: Wheel-made **Illustration**: None

Defining Characteristics: Fine, pure white, frit-bodied vessels, with a thick, slightly opaque, crazed, monochrome glaze covering the whole of the interior and exterior surfaces. The most common glaze colours are turquoise or white. Other noted colours include, cobalt-blue or purple. Vessels are all open bowls, with thin walls, high straight foot rings and simple pointed rims. Observation of 20th century frit, or stonepaste, production in Iran indicates that vessels were thrown in multiple sections, luted together, and dipped in a fine slip to create a smooth surface to mask the joins (Wulff, 1966: 165-66, fig. 248). Although FRIT.EM sherds have no obvious ribbing on the body, faint horizontal striations on the inside of the base suggest that they were produced in the same manner.

COLOUR	
Colour	White
Core	7.5YR 8/1
Margin	Same as core
Surface	Same as core

Integrity: Coherent, well defined class, though original surfaces are often degraded, and some pieces may have lost their original glaze colour.

Vessel Forms: Small to medium-sized, open bowls, with gently curved, flaring sides, mostly high straight foot rings and simple pointed rims.

Surface Treatment: Interior, and exterior, surfaces, including the interior of the foot, are covered by a thick, slightly opaque, crazed, white, or clear, monochrome glaze. Original glaze surfaces tend to be weathered leaving a thin, iridescent layer. At times, this too can flake away leaving a powdery layer of glaze remnants below.

Fabric: Hard, fine, extremely brittle and crumbly, pure white composite frit body, with no visible inclusions, a compact, well integrated matrix, and very low density.

Inclusions: None.

Specifications: Low density, with a compact granular structure, a fine, gritty feel and an irregular fracture.

Parallels and Dating: Mid-11th–13th century. The class is equivalent to form FMW: 01 and other ’01’ frit forms in the Williamson Collection (Priestman, 2005a: 278-79, pl. 153). A number of features

including the fine body, thin walls, specific vessel forms, and monochrome glazing, place this within the 'early frit' tradition first represented in the phased sequence at Kush from Phase E-08 and absent from the sequence at al-Mataf. This suggests a range of circulation from the late 11th–13th centuries (Kennet, 2004: 47-48, table 3). The earliest inscribed date on a frit vessel from Iran belongs to a piece from the Khalili Collection marked AD 1139–40 (Morgan, 1994b: 155-56). From Siraf there is important archaeological evidence indicating that early monochrome frit was introduced as some point later than the first quarter of the 11th century (Whitehouse, 1969: 46).

Origin: Southern Iran.

Class Code: FRIT.LM

Class Name: Late Monochrome Frit

Types: FRI-B2

Clay: Frit **Production**: Wheel-made **Illustration**: None

Defining Characteristics: The class has similar characteristics to FRIT.EM and may, at times, be difficult to distinguish, particularly when present as small non-diagnostic sherds. The main distinguishing characteristics are a slightly coarser, off-white fabric, and vessels with thicker walls. Where diagnostic elements are present, the vessel forms include flange or triangular rims and thicker bases, often with short and flaring foot rings. As with FRIT.EM, the predominant glaze colours for FRIT.LM are turquoise or white. Observation of 20th century frit, or stonepaste, production in Iran indicates that vessels were thrown in multiple sections, luted together and dipped in a fine slip to create a smooth surface and mask the joins (Wulff, 1966: 165-66, fig. 248). The same techniques were most likely used in the production of this class too.

COLOUR	
Colour	White
Core	7.5YR 8/1
Margin	Same as core
Surface	Same as core

Integrity: Coherent, well defined class, though surfaces are often degraded, and some pieces may have lost their original glaze colour.

Vessel Forms: Mostly small- to medium-sized, open bowls.

Surface Treatment: Interior and exterior surfaces, including the interior of the foot, are covered by a thick, slightly opaque, crazed, white or coloured, monochrome glaze. Original glaze surfaces tend to be weathered away leaving a thin, iridescent layer. At times, this too can flake away, leaving a powdery layer of glaze remnants below.

Fabric: Hard, fairly coarse, extremely brittle and crumbly, composite, frit body; fired to a pale yellow, or orange, off-white. Under low magnification, the core appears heavily pitted with voids and rounded grains of quartz, though these can be difficult to make out against the similar background colour of the matrix.

INCLUSIONS		
	1	2
Colour	Opaque white	Voids
Size	≤1mm	≤0.1mm
Shape	Rounded	Sub-rounded
Freq.	5%	7-10%
Sorting	Good	Good
ID	Quartz	Air pockets

Specifications: Low density, with a compact, granular structure, a rough feel and a fine, irregular fracture.

Parallels and Dating: 14th–16th century or later.

Origin: Southern Iran.

Class Code: FRIT.L

Class Name: White-Glazed Frit with Gold or Red Lustre

Types: FRI-OR1, B1

Clay: Frit **Production**: Wheel-made **Illustration**: Plate 106

Defining Characteristics: Fine, pure white, frit-bodied vessels, with a thick, slightly opaque, crazed, white, monochrome glaze covering the interior and exterior. Both interior and exterior surfaces have decoration over-painted in metallic gold or ruby-red lustre. Vessels are mostly open bowls, with thin walls, simple pointed rims, and high, straight foot rings. See FRIT.EM for discussion concerning production.

Integrity: Coherent, well defined class, though for most pieces the lustre is badly degraded. Where the lustre is completely degraded, the sherds would have been assigned to FRIT.EM leaving potential overlap between these classes.

Vessel Forms: Small to medium-sized bowls, with gently curved, flaring sides. Vessels generally have thin walls, simple pointed rims, and high, straight, and pointed, foot rings, with slightly raised central bosses. A few sherds also have heavier walls and other rim types.

Surface Treatment: Interior, and exterior, surfaces are covered by a thick, slightly opaque, crazed, white glaze that may stop above the base or continue over the foot ring and underside. Interior and exterior surfaces have decoration over-painted in metallic lustre, mostly gold, but on some pieces also ruby-red. Decoration tends to be heavily degraded and the pieces are fragmentary, so the overall decorative scheme is not apparent. Interior surfaces tend to be more elaborately decorated, often with a complex arrangement of panels filled with intricate dots and circles.

Fabric: See FRIT.EM

Parallels and Dating: 12th–14th century. This is the same as FRIT.L in the Williamson Collection and FRIT.L from Kush (Priestman, 2005a: 286-87, pl. 167; Kennet, 2004: 39), though the specific stylistic attributions may not be identical (see below). Lustre decorated frit has been discussed extensively. The

most comprehensive study is based largely on art pieces held in museums and private collections (Watson, 1985). Watson describes a number of distinct stylistic schemes that are widely recognised within the associated literature. Each of these styles can be dated based on the small proportion of pieces that have date marks on their bases. During the initial development of the tradition within Iran, there were two major decorative schools: the 'Monumental style', which generally has large figures shown in white against a solid lustre background, and the 'Miniature style' where the motifs are painted in lustre, often in a series of registers. Later both schools appear to merge to form the 'Kashan style', where the same basic device is used as in the Monumental style, but with the solid areas of lustre being enlivened by finely incised decoration (Watson, 1985: 45, 69, 88). Based on the epigraphic evidence, the Monumental and Miniature styles appear to be dated roughly to the last twenty years of the 12th century, while the Kashan style can be dated to the first twenty-five years of the 13th century (Watson, 1985: 109). From AD 1226–1261 there is a break, during which no dated pieces have come to light. From AD 1261 there are further dated pieces, but by this time the tradition has changed somewhat with a different style of decoration and rather heavy vessel forms that draw clear influences from the Longquan Celadon tradition (Watson, 1985: 110, pls. 88-89). At Kush, all of the FRIT.L occurs in Phases E-10 to E-11 dated to the 13th–14th centuries, indicating that they should belong to the Il-Khanid style, though stylistically one piece, at least, can be assigned to the Kashan style (Kennet, 2004: 39, table 3).

Origin: Kashan, Southern Iran? Watson, who has provided the most definitive study of the material, maintains that lustre decorated frit was produced exclusively at Kashan (Watson, 1985: 43-44). This assumption has not been tested archaeologically or through scientific means.

Class Code: FRIT.LB

Class Name: Blue-Glazed Frit with Gold Lustre

Types: FRI-OR1, B1

Clay: Frit **Production**: Wheel-made **Illustration**: Plate 107

Defining Characteristics: Fine, pure white, frit-bodied vessels, with a thick, slightly opaque, crazed, white glaze, and zones painted in blue, or an all-over, cobalt-blue coloured glaze covering the interior and exterior. Both interior and exterior surfaces have decoration over-painted in gold lustre, which appears dark, almost black against a blue background. Vessel forms are all open bowls, mostly with thin walls and simple pointed rims. See FRIT.EM for discussion concerning production.

Integrity: Coherent, well defined class, though for most pieces the lustre is badly degraded. Where the lustre is completely degraded, the sherds would have been assigned to FRIT.EM, creating a potential overlap between these classes.

Vessel Forms: Mostly small- to medium-sized, open bowls, with gently curved, flaring sides, thin walls and simple pointed rims. Other one-off types are represented, including bowls, with strongly everted rims, bases with wide, low, rounded foot rings and some closed vessels, including examples with paddled, multi-faceted sides.

Surface Treatment: Interior and exterior surfaces are covered by a thick, slightly opaque, crazed glaze that stops above the base. Two basic colour schemes are represented. One comprises a white glaze decorated with restricted cobalt-blue zones, over-painted with gold lustre. The second is covered all over with cobalt-blue coloured glaze. Lustre decoration tends to be badly degraded so the motifs and scheme are not clear. Commonly, the rim is highlighted by a lustre band that is broader on the exterior.

Fabric: See FRIT.EM

Parallels and Dating: 12th–13th century. Sherds with blue glaze are the same as FRIT.LB in the Williamson Collection (Priestman, 2005a: 286, pl. 166). Typologically, most of the sherds fit within the 'early frit' tradition (see FRIT.W above) and should share the same dating as the early styles of lustre (see FRIT.EM above), however this cannot be determined on the basis of the decoration.

Origin: Kashan, Southern Iran? (See FRIT.L above).

Class Code: FRIT.I

Class Name: Incised Decorated Monochrome Frit

Types: None

Clay: Frit **Production**: Wheel-made **Illustration**: Plate 108

Defining Characteristics: Relatively coarse, yellow, or orange, coloured frit-bodied vessels, with incised decoration cut into the body on the interior. Interior, and exterior, surfaces are covered by a thick, slightly opaque, crazed glaze that is badly degraded but appears to have been single colour, white or turquoise. Vessels are open bowls, with relatively thick walls, a low, heavy foot ring and an everted flange rim. See FRIT.EM for discussion concerning production.

COLOUR		
Colour	Pale yellow	Very pale brown
Core	5Y 8/2	10YR 8/3
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: Distinctive category but potentially varied in terms of production source.

Vessel Forms: Medium-sized, open bowls, with curved, flaring sides and relatively thick walls. In some cases, vessels have sharply flanged rims, and broad, heavy foot rings, with rounded profiles and slightly raised central bosses.

Surface Treatment: Interior surfaces are embellished with fairly simple incised decoration cut into the body (lines of 1–2mm thickness). These are darker where the glaze puddles in the incised lines. Decorative elements include simple bands or more complex elements. Both interior and exterior surfaces are covered by a thick, slightly opaque, crazed and badly degraded, monochrome glaze that appears to stop just before the foot.

Fabric: Hard, fairly coarse, extremely brittle and crumbly, composite, frit body, fired to a pale yellow, or orange, off-white. Under low magnification the core appears heavily pitted with voids and rounded grains of quartz, though these can be difficult to make out against the similar background colour of the matrix.

INCLUSIONS		
	1	2
Colour	Opaque-white	Voids
Size	≤1mm	≤0.1mm
Shape	Rounded	Sub-rounded
Freq.	5%	7-10%
Sorting	Good	Good
ID	Quartz	Air pockets

Specifications: Low density, with a compact granular structure, a rough feel and a fine, irregular fracture.

Parallels and Dating: 14th–16th century. This is the same as FRIT.IW and FRIT.IT in the Williamson Collection (Priestman, 2005a: 279, 283, pls. 154; 163). Stylistically, the pieces are similar to complete examples in the Ashmolean Museum from Iran dated to the 12th–13th centuries (Soustiel and Allan, 1995: figs 5; 16-17). Although incised decorated frit is not reported from Kush or al-Mataf, the coarse quality of the fabric and the types clearly link this material to the underglaze-painted frit tradition that is well represented in the al-Mataf sequence from the 14th century (Kennet, 2004: 38). It is not clear if the same dating applies to all incised decorated frit.

Origin: Southern Iran.

Class Code: FRIT.M

Class Name: Moulded and Appliqué Decorated Monochrome Frit

Types: None

Clay: Frit **Production**: Moulded **Illustration**: Plate 109

Defining Characteristics: Fine, pure white, frit-bodied vessels, with thick, slightly opaque, crazed, monochrome, white, turquoise-blue or cobalt-blue coloured glaze, covering the interior and exterior. Vessels appear to have been press- or slip-moulded, and have complex relief decoration on the exterior, or appliqué elements. Interior surfaces are slightly uneven and lack the horizontal regularity of the wheel-thrown frit categories. Vessels all appear to be tall bowls, or cups, with slightly closed upright sides, and an everted lip.

Integrity: Coherent group in terms of fabric, form, and mode of production. With a larger sample the class could potentially be sub-divided according to glaze colour and the use of appliqué.

Vessel Forms: Closed bowls, or cups, with upright sides and a gently, everted lip.

Surface Treatment: Exterior surfaces have complex moulded decoration starting just below the rim. Elements within the decoration are non-angular and have smooth, rounded edges to facilitate extraction from the mould.

Fabric: See FRIT.EM

Parallels and Dating: 12th–13th century. This is the same as FRIT.MW and FRIT.MT in the Williamson Collection (Priestman, 2005a: 279, 283-84, pls. 155; 164). Stylistically, the pieces are similar to complete

examples in the Ashmolean Museum from Iran (Soustiel and Allan, 1995: figs 13-15), though the shapes are different. Further examples from museum collections are illustrated by Lane (1947: pls. 42-44, of which pl. 42: a-b appear to be the same form as pieces attested archaeologically from Siraf). These are generally ascribed to the late 12th–13th centuries, though the archaeological evidence appears to be limited and no examples with inscribed dates are cited (Lane, 1947: 34-5; Soustiel and Allan, 1995). No moulded frit was found at Kush, which may indicate the style was introduced after the abandonment of the site at the end of the 13th century. Further evidence is clearly needed to provide a more secure dating for this class.

Origin: Southern Iran.

Class Code: FRIT.MIN

Class Name: Enamel Painted 'Minai' Frit

Types: None

Clay: Frit **Production**: Wheel-made **Illustration**: Plate 110

Defining Characteristics: Fine, pure white, frit body, with thick, slightly opaque, crazed, monochrome, white glaze covering the interior and exterior. Interiors are decorated in an extremely complex manner, using a variety of overlaid enamel colours contained within borders of thin lines painted in dark brown. See FRIT.EM for discussion concerning the production technique.

Integrity: Decorative style is extremely distinctive.

Vessel Forms: Open bowls with high, straight foot rings.

Surface Treatment: Interior and exterior are covered by a thick, slightly opaque, crazed, monochrome, white glaze decorated on the interior with extremely delicate, and complex, enamel colours built up in a series of layers. Individual colours are generally contained within areas delimited by thin, dark brown lines. Parts of the scheme are filled with blocks of deep red, cobalt-blue, light olive-green and pink. Finally, further lines are added over the colours in white and a lustrous black.

Fabric: See FRIT.EM

Parallels and Dating: Late 12th–early 13th century. Enamel painted frit, or ‘Minai ware’ as it has been widely referred to, is closely related to lustre, in that it represents a further technique of adding strong colour to the vessel surface in a secondary low temperature firing (Lane, 1947: 41). It is believed that enamel painted frit came from a single centre of production at Kashan, alongside frit painted with lustre (Watson, 1985: 363). As with lustre, FRIT.MIN may have undergone a stylistic evolution from the earliest pieces with large ‘monumental’ figures, towards an even more elaborate style that involved filling the surface with ‘miniature’ decorative elements. The earliest pieces with inscribed dates belong to the late 12th century and it is assumed that the Mongol invasion caused a decline in the production of this type of pottery from the AD 1220s (Lane, 1947: 41-43). The assertion that the production of FRIT.MIN was terminated by the Mongol invasion is based on the lack of pieces with inscribed dates for a large part of the 13th century, however there may be other reasons why date inscriptions stopped being applied and the hypothesis has never been tested archaeologically.

Origin: Kashan, Southern Iran.

Class Code: FRIT.BW

Class Name: Blue and White Underglaze-Painted Frit

Types: None defined

Clay: Frit **Production**: Wheel-made **Illustration**: Plate 111

Defining Characteristics: Frit-bodied bowls, with medium-thick walls, and high ring bases. Most vessels have both the interior and exterior, or the interior only, decorated with cobalt-blue, black, or a combination of both, under a transparent, alkaline glaze. The glaze generally covers the whole of the vessel and appears shiny, where preserved, though often it appears in a degraded condition. The class falls within the later frit tradition (Kennet, 2004: 38), with complex underglaze-painted decoration, and forms that display clear parallels with associated earthenware pottery of the same period.

COLOUR			
Colour	White	Pale yellow	Very pale brown
Core	5Y 8/1	5Y 8/2	10YR 8/3
Margin	Same as core	Same as core	Same as core
Surface	Same as core	Same as core	Same as core

Integrity: The whole class falls within a well defined production tradition, however there are clearly many more sub-divisions that could be made based on stylistic elements, vessel forms, and specific aspects of fabric composition.

Surface Treatment: Complex and varied range of patterns and pictorial images, which can appear sharp and detailed, or diffuse. Many of the motifs mimic those found in association with Chinese Blue and White. Potentially, the decoration may offer a key to the further sub-division and more precise dating of the class. The mode of glaze degradation appears to correspond in some cases with particular stylistic groups; this therefore appears to offer a further aspect that could help with the sub-division of the class.

Vessel Forms: Mostly small- to medium-sized, open bowls.

Fabric: Stonepaste, or frit, body made from crushed quartz, combined with small parts of china clay and crushed glass, fired at low temperatures. The paste feels light, soft and brittle, and is usually pure white, though some less-pure mixes occur, which can appear red, buff, or grey. Under low magnification the body appears glassy and grainy. Some of the more impure frits can be difficult to distinguish from an earthenware body.

INCLUSIONS		
	1	2
Colour	Opaque-white	Voids
Size	≤1mm	≤0.1mm
Shape	Rounded	Sub-rounded
Freq.	0–5%	7–10%
Sorting	Good	Good
ID	Quartz	Air pockets

Specifications: Low density, with a soft, porous structure, a soft, powdery feel and fine, irregular fracture.

Parallels and Dating: 14th–19th century or later. Frit with thick walls, a coarse fabric, underglaze-painted decoration. Vessel shapes such as the flange rim and heavy base, are absent from the latest phases at Kush dating to the 12th–13th centuries, but are well represented in the sequence from al-Mataf, which begins in the 14th century (Kennet, 2004: 38). In Williamson's largely unpublished, but potentially important excavations, at Tepe Dasht-i Deh, the same sequence is observed; with monochrome and lustre decorated frits occurring in Periods 1 and 2, and underglaze-painted frit with 'hammer rim' forms first appearing in Period 3, together with Longquan Celadon with appliqué fish (Williamson, 1971e: 183; 1972: 177, pl. XII: b). The latter in particular, are particularly characteristic of the late 13th and earlier 14th centuries and similar examples occur, for example, in the cargo of the Shinan shipwreck of AD 1323 discovered off the coast of Korea (Anon. 2006: pls. 123-25). Underglaze-painted frit continues in production into the 20th century. Certain criteria should enable a further chronological sub-division of the class and many of the pieces encountered archaeologically within the Persian Gulf and Indian Ocean region appear to be pre-17th century in date.

Origin: Southern Iran.

Class Code: FRIT.TB

Class Name: Turquoise and Black Underglaze-Painted Frit

Types: None defined

Clay: Frit **Production**: Wheel-made **Illustration**: Plate 112

Defining Characteristics: Frit-bodied vessels decorated with detailed, crisp, black decoration under a bright turquoise glaze, covering the interior and exterior, stopping just above the base. The turquoise glaze is either semi-translucent or opaque, and has a tendency to degrade, sometimes leaving only the black decoration still adhering. Most of the vessels are open bowls. Various specific types are represented; the most common is a simple bowl with a gently everted lip.

COLOUR			
Colour	White	Pale yellow	Very pale brown
Core	5Y 8/1	5Y 8/2	10YR 8/3
Margin	Same as core	Same as core	Same as core
Surface	Same as core	Same as core	Same as core

Integrity: The whole class falls within a well defined production tradition, however there are clearly many more sub-divisions within the class that could be made, based on stylistic elements, vessel forms and specific aspects of fabric composition.

Surface Treatment: A wide range of complex motifs similar in style to FRIT.BW. Potentially the decoration may offer a key to the further sub-division, and more precise dating, of the class.

Vessel Forms: Mostly small- to medium-sized, open bowls.

Fabric: Stonepaste, or frit, body made from crushed quartz combined with small parts of china clay and crushed glass fired at low temperatures. There are two main fabric groups associated with this class: a fine-grained, usually white coloured, glassy frit and a coarser-grained, crumbly, yellow frit with large quartz inclusions and a more clayey-looking matrix. Potentially it would be possible to sub-divide the class based on this distinction, although sometimes it would be difficult to maintain a consistent separation between the two.

INCLUSIONS		
	1	2
Colour	Opaque white	Voids
Size	≤1mm	≤0.1mm
Shape	Rounded	Sub-rounded
Freq.	0–5%	7–10%
Sorting	Good	Good
ID	Quartz	Air pockets

Specifications: Low density, with a soft, porous structure, a soft, powdery feel and fine, irregular fracture.

Parallels and Dating: 14th–17th century or later. See discussion of FRIT.BW 'Parallels and dating' above.

Origin: Southern Iran.

Class Code: FRIT.GW

Class Name: Green and White Decorated Frit

Types: None defined

Clay: Frit **Production**: Wheel-made **Illustration**: Plate 113

Defining Characteristics: Frit-bodied vessels, with an opaque, light green, alkaline glaze covering the interior and exterior, overlaid on the interior, or exterior, with fine, opaque, white decoration. The glaze has a 'dry', matt surface and has a tendency to peel away in flakes.

COLOUR	
Colour	White
Core	5Y 8/1
Margin	Same as core
Surface	Same as core

Integrity: A small sample of this class is represented within the Williamson Collection. Each piece is rather different, but the colour and decorative technique are consistent.

Surface Treatment: Reasonably well defined areas of crisp, white decoration, including spirals, concentric rings, flowers, or free flowing trailing. The decoration contrasts strongly with the green background. On one sherd the white decoration is bordered with black.

Vessel Forms: Mixed closed and open vessels.

Fabric: Stonepaste, or frit, body made from crushed quartz combined with small parts of china clay and crushed glass fired at low temperatures. The paste feels light, soft, and brittle, and is pure white. Under low magnification the body appears glassy and grainy.

INCLUSIONS		
	1	2
Colour	Opaque white	Voids
Size	≤1mm	≤0.1mm
Shape	Rounded	Sub-rounded
Freq.	0–5%	7–10%
Sorting	Good	Good
ID	Quartz	Air pockets

Specifications: Low density, with a soft, porous structure, a soft, powdery feel and fine, irregular fracture.

Parallels and Dating: 14th–17th century or later. See discussion of FRIT.BW 'Parallels and dating' above.

Origin: Southern Iran.

Class Code: FRIT.UGP

Class Name: Underglaze-Painted Frit

Types: None defined

Clay: Frit **Production**: Wheel-made **Illustration**: None

Defining Characteristics: Relatively coarse and soft, light yellow, orange, or white coloured, frit-bodied vessels. Interior and exterior surfaces are covered by a thick, slightly opaque, crazed, plain, or coloured, glaze and underglaze-painted decoration, often in black, combined with fills of other colours, such as turquoise, or cobalt-blue. Vessels are open bowls, with relatively thick walls, low, heavy foot rings and rims that are often flanged, or simply everted. See FRIT.EM for discussion concerning production techniques.

COLOUR		
Colour	Pale yellow	Very pale brown
Core	5Y 8/2	10YR 8/3
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: Coherent, well defined class in terms of the main attributes, but certain features, such as the fabric and stylistic scheme, display considerable variation. Clearly, the material is derived from different sources and could cover a significant range in terms of date. Further sub-divisions within the class could be made with a larger body of material.

INCLUSIONS		
	1	2
Colour	Opaque white	Voids
Size	≤1mm	≤0.1mm
Shape	Rounded	Sub-rounded
Freq.	0–5%	3–10%
Sorting	Good	Good
ID	Quartz	Air pockets

Specifications: Low density, with a compact, granular structure, a rough feel and a fine, irregular fracture.

Vessel Forms: Small to medium-sized, open bowls, with curved, flaring sides, relatively thick walls, gently everted, or flanged, rims, and low, heavy foot rings, with slightly raised central bosses.

Surface Treatment: Interior and exterior surfaces are covered by a thick, semi-opaque, crazed glaze that generally seems to stop just before the base. Vessels within this group are glazed and painted with colour combinations that do not fit within the main FRIT.BW and FRIT.TB colour schemes, but often with similar sets of colours. The most complex decoration occurs on the interior of bowls, or exterior of jars. Exteriors of bowls can be left plain, or are sometimes painted, mostly with a simple horizontal band.

Fabric: Fairly coarse, and extremely brittle and crumbly, composite, frit body, fired to a pale yellow, orange, or white. Under low magnification, the core appears heavily pitted with voids and contains varying quantities of rounded grains of quartz, though these can be difficult to make out against the similar background colour of the matrix.

Parallels and Dating: 14th–17th century or later. See discussion of FRIT.BW 'Parallels and dating' above.

Origin: Southern Iran.

Class Code: FRIT.EI

Class Name: Enamel Imitation Frit

Types: None defined

Clay: Frit **Production**: Wheel-made **Illustration**: Plate 114

Defining Characteristics: Straight-sided, thin-walled, frit-bodied bowls, with brightly coloured decoration over a thick, glossy, well fitted, white glaze, covering both the interior and exterior. The style of glaze and decoration provides a close imitation of enamelled porcelain from East Asia.

COLOUR	
Colour	White
Core	7.5YR 8/1
Margin	Same as core
Surface	Same as core

Integrity: Coherent sub-class.

Surface Treatment: Examples in the Williamson Collection have bright red, painted decoration on the interior. On the exterior, a coloured band is combined with a diffuse, pink, criss-crossing motif. The interior decoration bears a much closer resemblance to ENAM than the exterior.

Vessel Forms: Typically, an open bowl, with straight, flaring sides, and a simple, pointed rim.

Fabric: Hard, fine, extremely brittle and crumbly, pure white, composite, frit body, with no visible inclusions, a compact, well integrated matrix, and very low density.

Inclusions: None.

Specifications: Low density, with a compact, granular structure, a fine, gritty feel and an irregular fracture.

Parallels and Dating: 18th–19th century. The class must be dated to the same period as, or later than, the ENAM that it imitates (Kennet, 2004: 52).

Origin: Southern Iran.

Class Code: FRIT.N-ID

Class Name: Non-Identified Frit

Types: None defined

Clay: Frit **Production**: Wheel-made **Illustration**: None

Defining Characteristics: Frit-bodied vessels that are either too degraded to assign to a specific sub-class, or which have some other unusual characteristics that cannot be related to the categories defined above.

Colour: White or off-white.

Integrity: Clearly identifiable as frit-bodied vessels even when present in a degraded condition but cannot be assigned to a specific cub-class.

Inclusions: Can be a pure white frit body, or be off-white, often with rolled quartz inclusions and larger voids.

Specifications: Low density, with a compact granular structure, a rough feel and a fine, irregular fracture.

Vessel Forms: Generally small- to medium-sized, open bowls, with curved, flaring sides, relatively thick walls, gently everted, or flanged, rims, and low, heavy foot rings, with slightly raised central bosses. Some closed forms are also represented.

Surface Treatment: Interior and exterior surfaces covered by glaze, sometimes with underglaze-painted decoration.

Fabric: Crumbly, composite, frit body, fired to a pale yellow, orange, or white.

Parallels and Dating: 14th–17th century or later. See discussion of 'late frit' sub-classes above.

Origin: Southern Iran.

Underglaze-Painted Ware

Class Code: MGPAINT-1

Class Name: Manganese Purple Underglaze-Painted Ware, Group 1

Types: GGW-OR8, B1

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 115

Defining Characteristics: Mostly flange-rimmed bowls, with blue-green glazed interiors, and thick, black, manganese, underglaze-painted decoration. The glaze is usually completely degraded, leaving only the black paint standing proud of the body. The fabric is hard, consistently oxidised to buff-orange, and contains numerous coarse inclusions, mostly limestone and rounded quartz.

COLOUR	
Colour	Very pale brown
Core	10YR 8/4
Margin	Same as core
Surface	Same as core

Integrity: Coherent, well defined and very distinctive class.

Vessel Forms: Medium-sized, open bowls, with curved, flaring sides, flanged rims and heavy, squared foot rings. All of the diagnostic sherds belong to Kennet's Type 26, with a flanged rim, and Type 31, with a flanged and recurved lip (Kennet, 2004: fig. 12).

Surface Treatment: Decoration occupies the interior surfaces only. This consists of a white slip, over-painted with broad, black lined decoration, and covered by a clear, or possibly in places green or blue coloured, lead glaze. Mostly, the glaze has completely weathered away, leaving only the painted decoration, which characteristically stands slightly proud of the body. In some cases, the surfaces have an iridescent, silvery sheen where some element of the glaze remains. Decoration occupies much of the surface and consists of various elements bisecting and delimiting zones filled with repetitive devices, such as dots, cross hatching, or wavy lines.

Fabric: The fabric tends to be darker than that described by Kennet for the same class (Kennet, 2004: 40). It is mostly a buff-yellow, with frequent, well sorted, rounded, translucent, or opaque, white and grey, quartz inclusions, some small voids, and variable levels of fairly well sorted, large, angular, lime fragments.

INCLUSIONS		
	1	2
Colour	Semi-translucent white	Opaque white
Size	≤1mm	≤3mm
Shape	Well rounded	Sub-rounded
Freq.	3–5%	Occasional
Sorting	Good	Very poor
ID	Rolled quartz	Limestone?

Specifications: Average density, with a compact structure, a gritty feel and a pitted, irregular fracture.

Parallels and Dating: 11th–early 14th century. The class occurs at Kush between Phases E-06 to E-08 dated to between the 11th and early 12th centuries (Kennet, 2004: 40-41, table 3). It had not been previously noted from al-Mataf, other than a single sherd in Period I from the central mosque sequence, potentially indicating its decline before the 14th century when that site was established. However, the recent finds represented from Chinese excavations at al-Nudud (personal observation), indicate that the class remained in circulation longer than was previously thought. Pottery that may be the same class is also described as being one of the most common elements distributed across the surface of Kish in southern Iran (Whitehouse, 1976: 147), which was founded after the mid-11th century, but achieved its greatest period of prosperity through the 12th century and 13th centuries (Whitehouse, 1983: 330). The relative scarcity of MGPAINT-1 in the assemblage from Siraf, in the British Museum, might indicate that the class achieved only limited circulation during the 11th century during the last significant period of occupation at Siraf (Whitehouse, 1983: 329).

Origin: The general similarities between the MGPAINT-1 fabric and that associated with two coarse ware classes from Bahrain; LIME and a ware that Williamson named 'Ali ware', indicate that MGPAINT-1 may also have been manufactured in Bahrain.

Class Code: MGPAINT-2

Class Name: Manganese Purple Underglaze-Painted Ware, Group 2

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 116

Defining Characteristics: Mostly medium-sized, open bowls, with squared foot rings, and rims that are usually simple and straight, with rounded lips. The vessels have a shiny, translucent, yellowish-green tinted glaze on the interior and thick (2–5mm), slightly diffuse, manganese purple, painted lines, with the spaces between in-filled with turquoise-blue, or purple, splashes. Decorative motifs include simple radiating lines and horizontal bands below the rim. The fabric is fine-grained and bright cream in colour, with occasional grit elements.

COLOUR	
Colour	Pale yellow
Core	2.5Y 8/4
Margin	Same as core
Surface	Same as core

Integrity: Coherent, well defined and distinctive class that appears to be from a single place of origin.

Vessel Forms: Small- to medium-sized, open bowls, with curved, flaring sides, simple rims, and a low, squared foot ring. The class also includes a series of small vessels, with narrow mouths, and a slight carination below the rims.

Surface Treatment: Interior and upper exterior covered by a clear, or slightly opaque, shiny, yellow, or green, tinted glaze, with obvious crazing. Decoration consists of simple, diffuse, manganese purple lines, filled with turquoise-blue, or purple, washes. The overall decorative concept is similar to MGPAINT-1, except that the purple is lighter and is completely integrated within the glaze.

Fabric: Hard but slightly brittle and porous, consistently oxidised, cream coloured fabric, with a fine biscuit-like structure, and occasional small, coarse inclusions that include grains of rolled quartz and red mineral elements. Inclusions appear either intact or as voids with a brown, discoloured surrounding matrix.

INCLUSIONS		
	1	2
Colour	Discoloured void	Opaque white
Size	≤0.2mm	≤0.5mm
Shape	Sub-rounded	Well rounded
Freq.	1–3%	Occasional
Sorting	Fair	Very good
ID	Burnt out mineral?	Rolled quartz

Specifications: Average to low density, with a compact, crumbly and somewhat porous structure, a gritty feel and an irregular fracture.

Parallels and Dating: 17th–20th century. This is the same as MGP.2 in the Williamson Collection and MGPAINT.2 from post al-Mataf survey collections in Ras al-Khaimah (Kennet, 2004: 40-41). A large group of MGPAINT-2 sherds were recovered from Area 74 on Hulaylah, together with a range of other ceramics that are absent from the stratified sequence at al-Mataf, indicating a date later then the early 17th century when al-Mataf was abandoned (Kennet, 2004: 41).

Origin: Southern Iran?

Class Code: UGP.BW

Class Name: Blue and White Underglaze-Painted Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 117

Defining Characteristics: Mostly small- to medium-sized, open bowls, with squared foot rings and simple, gently everted, or flanged, rims with rounded lips. Closed forms are also represented. Interiors of bowls and exteriors of jars are covered by a white slip and a cloudy glaze, with dark cobalt-blue,

black, or occasionally turquoise, underglaze-painted decoration. The fabric is rather mixed, but mostly it is fine and compact, with no significant visible inclusions and is fired to cream, buff or orange.

COLOUR		
Colour	Pink	Pale yellow
Core	7.5YR 7/4	2.5Y 8/3
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: General concepts of glazing, decoration and type are consistent, but the fabric and specific decorative schemes vary, and are clearly derived from a large number of different sources.

Vessel Forms: Small to medium-sized, open bowls, with curved flaring sides, simple straight, or flanged, rims, and heavy bases, with high, narrow, rounded foot rings, or raised, flat bases, with turned, central depressions.

Surface Treatment: Interiors of bowls, and exteriors of jars, are covered by a white slip and a cloudy glaze, with painted decoration predominantly in black and cobalt-blue, or turquoise. Patterns consist either of a radial arrangement, often contained within formal registers, or lines that bisect the surface into zones filled with repetitive devices, such as dots or cross hatching.

Fabric: Hard, compact, well levigated, and consistently oxidised to cream, buff, or orange. Generally, the fabric contains some occasional mixed, coarse inclusions, but these vary widely in nature and frequency across the sample.

Inclusions: Varied.

Specifications: Average density, with a compact structure, a smooth feel and a clean, slightly irregular fracture.

Parallels and Dating: 14th–17th century or later. This is the same as UGP.BW in the Williamson Collection (Priestman, 2005a: 266-67). Underglaze-painted ware appears to have been widely manufactured, and there are many different styles, some of which are distinctive and readily recognisable. At al-Mataf, underglaze-painted ware represents almost half of the glazed ware assemblage, however, most of the material was too badly degraded to recognise specific styles. In both the occupation and mosque sequences at al-Mataf, the frequency of underglaze-painted ware increased significantly in Phases II and III, suggesting a major increase in circulation during the 15th–early 16th centuries (Kennet, 2004: table 7), after which the class continues to predominate as the principal Islamic glazed ware into the early modern era.

Origin: Southern Iran?

Class Code: UGP.TB

Class Name: Turquoise and Black Underglaze-Painted Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 118

Defining Characteristics: Mostly small- to medium-sized, open bowls, with squared foot rings and simple, gently everted, or flanged, rims, with rounded lips. Closed forms are also represented. Interiors of bowls, and exteriors of jars, are covered by a white slip, black painted decoration, and a bright, turquoise glaze. The fabric is rather mixed, but mostly it is fine and compact, with no significant visible inclusions, and is fired to cream, buff, or orange.

COLOUR		
Colour	Pink	Pale yellow
Core	7.5YR 7/4	2.5Y 8/3
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: General concepts of glazing, decoration and type are consistent, but the fabric and specific decorative schemes vary, and are clearly derived from a large number of different sources.

Vessel Forms: Generally small- to medium-sized, open bowls, with curved flaring sides, simple, straight, or flanged, rims and heavy bases, with high, narrow, rounded foot rings, or raised, flat bases, with turned, central depressions.

Surface Treatment: Interiors of bowls, and exteriors of jars, are covered by a white slip, black painted decoration, and a turquoise glaze. Patterns consist either of a radial arrangement, often contained within formal registers, or lines that bisect the surface into zones filled with repetitive devices, such as dots or cross hatching.

Fabric: Hard, compact, well levigated, and consistently oxidised to cream, buff, or orange. Generally, the fabric contains some occasional mixed, coarse inclusions but these vary widely in nature and frequency across the sample.

Inclusions: Varied.

Specifications: Average density, with a compact structure, a smooth feel and a clean, slightly irregular fracture.

Parallels and Dating: 14th–17th century or later. See discussion of UGP.BW ‘Parallels and dating’ above.

Origin: Southern Iran?

Class Code: UGP.CB

Class Name: Crude Black Underglaze-Painted Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 119

Defining Characteristics: Medium-sized, thick-walled bowls, with heavy foot rings, simple, gently everted, or folded, rims, and obvious stacking marks on the interior. The interiors are covered by a transparent, or green tinted, glossy glaze and bold, black, underglaze-painted decoration. In most cases, the glaze has completely worn away, leaving only the black decoration standing slightly proud of the

body. The bowls tend to be roughly finished, giving the body a coarse appearance, although actually the fabric is fine.

COLOUR	
Colour	Light brown/ very pale brown
Core	7.5YR 6/4
Margin	10YR 7/3-4
Surface	Same as margin

Integrity: Very coherent and distinctive class, easily distinguishable from the other underglaze-painted ware classes.

Vessel Forms: Generally, small- to medium-sized, open bowls, with curved, flaring sides, simple straight, or flanged, rims, and heavy bases, with high, narrow, rounded foot rings or raised, flat bases, with turned, central depressions.

Surface Treatment: Distinctive, broad, black-lined motifs including, most commonly, a simple radial design comprised of six spokes emanating from the centre of the vessel, which are joined by a band below the rim to form a cartwheel. Another common motif is a flower design. Closer to the rim, the designs can become more complex and include lattice or scrolled in-fillings.

Fabric: The fabric displays some variation, but generally it is fired to a light brown in the core, and a very pale brown in the margin. It has a hard, sandy composition, a smooth fracture, and a fine, gritty feel. The only coarse elements are occasional, mixed, sandy grains, and small, infrequent voids.

Inclusions: Occasional, mixed, sandy grits, and voids.

Specifications: Average density, with a compact structure, a smooth feel and a clean, slightly irregular fracture.

Parallels and Dating: 14th–17th century or later. Equivalent to UGP.TTB in the Williamson Collection (Priestman, 2005a: 267), but the title has been changed as the previous one was inaccurate. For dating see discussion of UGP.BW 'Parallels and dating' above.

Origin: Southern Iran?

Class Code: UGP.BG

Class Name: Brown and Green Underglaze-Painted Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 120

Defining Characteristics: Hard, pink-bodied bowls covered over the interior, and exterior, with thin, glossy, transparent, greenish-yellow glaze, and decorated with splashes of green, or brown, combined with crisp lines applied as painted decoration. Many of the vessels have a distinctive, sharp angle at the interior of the base. The angle between the wall and base on the exterior is often chamfered, and the base itself has a rough, uneven, glazed surface.

COLOUR		
Colour	Reddish-yellow	Light brown
Core	5YR 7-6/6	7.5YR 6/3
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: Distinctive and coherent class.

Surface Treatment: Extensive, diffuse, green and brown, splashed zones, combined with sharp, brown, trailed decoration, applied with a brush.

Vessel Forms: Small, open bowls, with simple, gently everted, or folded, rims and uneven, flat bases, or low, squared foot rings.

Fabric: Very fine, compact, evenly oxidised, orange earthenware, with a hard, slightly brittle, uneven fracture. The extremely fine, grainy composition, has occasional, angular, sandy grits, and a number of small, mostly elongated, voids.

INCLUSIONS	
	1
Colour	Mixed or opaque white
Size	<0.5mm
Shape	Angular
Freq.	≤1%
Sorting	Fair
ID	Sandy grains, mostly quartz

Specifications: Average density, with a compact structure, a gritty feel and a fine, irregular fracture.

Parallels and Dating: 17th–20th century. Equivalent to SPL.L in the Williamson Collection (Priestman, 2005a: 272), but title has been changed as the previous categorisation was inaccurate. The class has not been noted at al-Mataf (Kennet, 2004). While the material bears some resemblance to the splash-glazed ware tradition of the 9th century, the quality of the glaze, the in-glaze colours, the forms and the fabric all indicate that this is a much later production, most likely related to the period of the 17th–20th century.

Origin: Southern Iran.

Class Code: UGP

Class Name: Underglaze-Painted Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: Small to medium-sized, open bowls, with simple, straight, or flanged rims and high, narrow foot rings, or flat bases. Interiors, and upper exteriors, are covered by a white slip and painted decoration, mostly utilising black, blue, and turquoise, covered with clear glaze. The most common colour schemes for underglaze-painted wares are blue and black on white (UGP.BW), and black under a turquoise glaze (UGP.TB), but this category is used to capture other more varied colour schemes that do not fall within these groupings. The fabric tends to be hard, compact, fairly coarse, and fired to oxidised tones of cream, buff, orange, or brick-red.

COLOUR		
Colour	Pink	Pale yellow
Core	7.5YR 7/4	2.5Y 8/3
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: General concepts of glazing, decoration, and type are consistent, but the fabric, specific decorative schemes, and glaze quality vary extensively, and there are clearly multiple centres of production covering an extended chronological range.

Vessel Forms: Mostly small- to medium-sized, open bowls, with curved, flaring sides, simple, straight, or flanged, rims, and heavy bases, with high, narrow, rounded foot rings, or raised, flat bases with turned, central depressions. Also, some closed vessels.

Surface Treatment: Interiors of bowls, and exteriors of jars, covered by a white slip, painted decoration, and a clear glaze. Patterns consisting either of a radial arrangement, often contained within formal registers, or lines bisecting the surface into zones filled with repetitive devices, such as dots or cross hatching.

Fabric: Hard, compact, well levigated, and consistently oxidised to cream, buff, orange, or red. The fabric generally contains some occasional, mixed, coarse inclusions, but these vary widely in nature and frequency across the sample.

Inclusions: Varied.

Specifications: Average density, with a compact structure, a smooth feel and a clean, slightly irregular fracture.

Parallels and Dating: 14th–17th century or later. See discussion of UGP.BW ‘Parallels and dating’ above.

Origin: Southern Iran?

Late Monochrome-Glazed Ware

Class Code: MONO.LG1

Class Name: Late Monochrome Green-Glazed Ware, Group 1

Types: GGW-OR3-7, OR9-10, OR12-14, GGW-B3-5

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 121

Defining Characteristics: Light buff-brown, or cream coloured, fabric, with varying levels of coarse inclusions, most often including fairly coarse, crushed, reddish, platy grits. Interior, and upper exterior, surfaces are covered by a dark, bottle-green, or turquoise-blue, glaze that is generally heavily degraded.

COLOUR			
Colour	Pale yellow	Very pale brown	Pink
Core	2.5Y 8/3	10YR 8/3	7.5YR 7/4
Margin	Same as core	Same as core	Same as core
Surface	Same as core	Same as core	Same as core

Integrity: The class is well represented in the assemblage from Siraf and appears to be a local production specific to the area. Certain variation occurs in the composition of the fabric and quality of firing (see below). This can most likely be accounted for by deliberate variations in clay preparation, or firing regime, within a single workshop environment.

Vessel Forms: Wide range of bowl forms with distinctive everted, or thickened, rims. Vessel sizes range from small to large. Shapes include bowls, with curved, flaring sides, and basins, with wide bases and upright sides. Base types include flat and crudely turned rings.

Surface Treatment: Interior surfaces are glazed with monochrome, green, or turquoise, glaze that steps over the exterior and stops below the rim. Glazes tend to be badly degraded and sometimes preserved only as a white, or yellow, trace on the surface. Exteriors of some types have a shallow covetto, ridged, or incised, bands, or simple, incised, wavy lines. Some of the larger basin types (GGW-OR12-13) have distinctive 'handles', consisting of a narrow strip of clay, applied to the side and rim.

Fabric: Made from clay that is crudely wedged, leaving structural voids visible in the matrix. The fabric is fired to oxidised tones of light buff, or cream that varies significantly in hardness and level of vitrification, from hard and reasonably compact, to soft, porous and very crumbly. Cream coloured tones appear to be linked to the fabric's softer condition. Most sherds contain frequent, coarse inclusions of two main types: crushed, platy, red, or dark brown, stone grits, and soft, rounded, buff coloured lumps that appear to have partially dissolved into the surrounding matrix. Some sherds contain only one of these two elements and some no coarse inclusions at all. There is some correlation between smaller vessels, with fewer, or no, inclusions, and larger vessels, with more frequent and larger inclusions, but this is not always consistent. Perhaps a more important determining variable is vessel form. Certain vessel forms display very few coarse inclusions, across the full size range, while others always appear to have a grit temper. These impressions would need to be further tested in order to reach a clearer conclusion. The class provides an interesting test case for looking at the potential range of internal variation within what appears to be a single production tradition.

INCLUSIONS		
	1	2
Colour	Red/brown	Cream/buff
Size	≤2mm	≤3mm
Shape	Sub-angular	Well rounded
Freq.	0–7%	0–3%
Sorting	Poor	Good
ID	Crushed stony flakes	Non-weathered clay parent material?

Specifications: Either average density, with a compact structure, a rough feel and an irregular fracture, or low density, with a soft porous structure, a rough feel and an irregular fracture.

Parallels and Dating: 14th–17th century. There are no known external parallels for this distinctive class. Clearly it fits well within the widespread post-sgraffiato monochrome-glazed tradition, which seems to encompass much of the Islamic word from East Africa to Pakistan (Kennet, Petrie and Priestman, 2007; Priestman, 2010b). At Siraf, the major concentration of the class occurs at Site E. Ceramic finds from Site E indicate a construction date for the building within the 14th century (Whitehouse, 1972: 84-85).

Origin: Kangan, Southern Iran.

Class Code: MONO.LG2

Class Name: Late Monochrome Green-Glazed Ware, Group 2

Types: GGW-OR2-3, GGW-B2

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 122

Defining Characteristics: Hard, fairly compact, orange-buff, or reddish-orange, coloured fabric, with numerous, coarse, red grits and some softer, rounded, buff inclusions. Vessels are all open bowls, with simple flaring rims and flat bases. Both interior and exterior surfaces are covered by a white slip and a monochrome, green glaze that is weathered and degraded.

COLOUR		
Colour	Reddish-yellow	Reddish-yellow
Core	7.5YR 7/6	5YR 6/6
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: Coherent, well defined class. Similar to MONO.LG1 and quite possibly part of the same production tradition, but with certain consistent differences including the orange, or red, firing fabric, glazing on both the interior and exterior, and the particular way that the glaze degrades (see below).

Vessel Forms: Medium-sized, open bowls, with gently curved, flaring sides, and simple, everted rims. Bases are flat, slightly concave and generally set on a slight pedestal. The underside can be turned flat, with wire cutting marks still visible, or have a shallow incised ring. Interiors usually have a shallow turned ring delimiting the base/wall interface.

Surface Treatment: Interior, and exterior, covered with white slip and a monochrome, green glaze that continues over the base. Where only a trace of the glaze is left, the surface appears light yellow, turquoise, or white. Where the glaze remains thicker, it often turns dark brown and murky, with a strong, opalescent sheen. Originally the colour appears to have been dark green.

Fabric: Fairly hard and somewhat brittle, consistently oxidised buff-orange, or reddish-orange, coloured fabric, with numerous coarse inclusions. Inclusions consist of crushed, reddish, platy grits and softer, rounded, buff coloured elements. As with MONO.LG1, the fabric appears crudely wedged, though in all examples the sintering is reasonably advanced.

INCLUSIONS		
	1	2
Colour	Red/brown	Cream/buff
Size	≤3mm	≤2mm
Shape	Sub-angular	Well rounded
Freq.	7%	1–3%
Sorting	Poor	Good
ID	Crushed stony flakes	Non-weathered clay parent material?

Specifications: Average density, with compact granular structure, a rough feel and hackly fracture.

Parallels and Dating: 14th–17th century. There are no known external parallels for this class. As with MONO.LG1 the class fits within the post-sgraffiato monochrome-glazed tradition of the 14th centuries and later (see above).

Origin: Kangan, Southern Iran.

Class Code: KHUNJ

Class Name: Khunj/Bahla Ware

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 123

Defining Characteristics: The fabric is extremely dense and well levigated, with a fine structure and a sub-conchoidal fracture. At times it can be confused with stoneware. Most pieces are fired to a light grey, or reddish-yellow. Both interior and exterior surfaces are covered by a green, or greenish-brown, glaze and distinctive, irregular, orange patches.

COLOUR		
Colour	Reddish-yellow	Reddish-grey
Core	5YR 6/6	2.5Y 6.5/1
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: Very consistent and distinctive class.

Vessel Forms: Mostly medium-sized bowls, with simple rims and a distinctive, slightly projecting foot with a turned recess in the underside and hollow at the top of the foot. The class also includes jar types with small, horizontally aligned, 'butterfly' handles attached to the shoulder.

Surface Treatment: Both the interior and exterior are covered with a glossy, monochrome glaze. The glaze tends to be quite thin, and to range in colour from a deep, bottle green through to dark brown. Those pieces that have a brown glaze tend to have a distinctive freckled appearance, with darker dots in the glaze, but these do not show up in the green versions of the glaze. The glaze tends to cover both the interior and exterior; coming right down to the bottom of the foot and inside the well of the foot on bowls.

Fabric: Hard, compact and extremely dense, finely levigated fabric, fired to orange, or grey. Often both colours are represented on the same vessel, especially with predominantly reduced pieces, which tend to have distinctive red patches of oxidisation on the surface that show clearly through the glaze.

Inclusions: Very fine, white flecks, only visible where the fabric is oxidised orange.

Specifications: High density, with a compact structure, a fine, gritty feel and an irregular, or sub-conchoidal fracture.

Parallels and Dating: 16th–20th century. The class first appears in Phase III of the Mosque area at al-Mataf dated to the 16th century and remains common throughout the rest of the occupation (Kennet, 2004: table 7). The class continues to be well represented through every phase of the al-Ain sequences covering the mid-17th to early 20th century (Power, 2015: 10-11, 16, fig. 7: top left) contradicting an earlier assertion suggesting the decline of the class before the 19th century based on its absence in Trench 1 (Level IV) in Ras al-Khaimah, dated to the 19th–20th centuries (Hansman, 1985: 17).

Origin: The provenance of Khunj/Bahla ware is complicated. Williamson is reported to have identified evidence for the production of the class from the site of Khunj/Kung near Bandar-i Lengeh in southern Iran (Hansman, 1985: 52-3, fig. 12: i-p, pl. V: t, u, w). However, there are no wasters for this class represented amongst the surface survey finds from Khunj that Williamson collected (Priestman and Kennet, 2002; Priestman, 2003; 2005a). Elsewhere, three misfired pieces are represented amongst the finds that Stein collected from the same site housed at the Peabody Museum in Harvard (registration numbers 36-91-60/4978-4979). At the same time, very similar looking pottery (or the same pottery?) is found widely distributed in Oman and this is generally attributed to the important ceramic production centre of Bahla (Whitcomb, 1975: 129; Priestman, 2008b: 277-78, pl. 12). Further archaeological research is required to establish the precise relationship between the products of these two widely separated areas of production.

Class Code: SPECLE.1

Class Name: Speckled Glaze Ware - Cream Fabric Blue/Green Glaze

Types: GGW-OR15

Clay: Earthenware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: Monochrome, green-, or blue-glazed vessels, with a hard, compact, but slightly crumbly, very pale brown (10YR 8/3) fabric, that ranges from fairly fine to coarse. Vessels are covered by a deep, bottle green through to turquoise-blue, coloured glaze with a distinctive, speckled,

and pitted, glazed surface. The glaze tends to cover both the interior and exterior of jars, and interior and upper rim exterior of bowls. Bowls have stacking spur marks on the interior.

COLOUR	
Colour	Pale Yellow
Core	2.5Y 8/3
Margin	Same as core
Surface	Same as core

Integrity: Distinctive, easily recognisable class.

Vessel Forms: Mostly relatively thick-walled bowls, with crudely turned bases and a flange rims. Some closed vessel types are also represented.

Surface Treatment: Covered by a monochrome, turquoise-blue, or green, coloured glaze with a distinctive, speckled appearance, caused by a combination of streaky, black flecks within the glaze, and the tendency of the glaze to blister and puddle, making it darker where it concentrates and lighter where it is thin.

Fabric: Hard, compact, well levigated, slightly crumbly fabric, with no visible inclusions, other than occasional buff coloured elements, that sometimes burn out and leave a coating around a void. The fabric is oxidised through the core and fired to a consistent buff or brown.

INCLUSIONS	
	1
Colour	Buff
Size	≤1mm
Shape	Well rounded
Freq.	≤3%
Sorting	Fair
ID	Limestone?

Specifications: High to average density, with a compact structure, a gritty feel and an irregular fracture.

Parallels and Dating: 14th–17th century. The class is equivalent to PERSIA.2 in the Williamson Collection and PERSIA from al-Mataf (Priestman, 2005a: 270-71; Kennet, 2004: 42). This type of pottery is well represented in the sequence at al-Mataf from Phase II-REC dated to between the 15th–early 17th centuries (Kennet, 2004: 42). There is no indication of any decrease in the frequency of the class towards the end of the sequence, suggesting that it may have continued in circulation into the post al-Mataf period. The main form represented is equivalent to Kennet's Types 101 and 104 (Kennet, 2004: fig. 11).

Origin: The class has been referred to elsewhere as 'Persian imitation celadon' or 'Persian blue specked ware' (Hansman, 1985: 52; Kennet, 2004: 42), with the assumption that its source is likely to be in southern Iran. This possibility has not been tested. What is striking to note is that the same class actually appears to be even more prevalent in assemblages dated from the 14th century onwards in East Africa, such as Shanga (Horton, 1996b: 293, fig. 218) or Gedi (Kirkman, 1963: 47-48, fig. 13: n-o). There is also a close visual correspondence between the fabric of SPECLE.2 and Yemeni Yellow, raising the possibility that this pottery originates in South Arabia. Given the clear differences in fabric between SPECLE.1 and SPECLE.2, there may well be multiple centres of production for what appears to be at least a superficially similar class.

Class Code: SPECLE.2

Class Name: Speckled Glaze Ware - Red Fabric, Mixed Colour Glaze

Types: GGW-OR15

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 124

Defining Characteristics: Monochrome-glazed vessels, with a hard, compact, but slightly crumbly fabric, that is reddish-yellow in the core, and lighter pink in the margin. Vessels are covered by a monochrome glaze, which appears in a variety of colours including green, blue, turquoise, or mauve. The glaze generally has a distinctive, mottled appearance, and covers both the interior and exterior of jars, and interior and upper rim exterior of bowls. Bowls also have stacking spur marks on the interior.

COLOUR	
Colour	Reddish-yellow, pink
Core	2.5YR 6/6
Margin	7.5YR 7/4
Surface	Same as margin

Integrity: Distinctive, easily recognisable class.

Vessel Forms: Mostly relatively thick-walled bowls, with crudely turned bases and a flange rims. Some closed vessel types are also represented.

Surface Treatment: Covered by a monochrome glaze coloured green, blue, turquoise, or mauve. Often the colour of the glaze differs quite extensively between the exterior and interior surfaces. The glaze has a distinctive, speckled appearance, caused by a combination of streaky, black flecks within the glaze and the tendency of the glaze to blister and puddle, making it darker where it concentrates and lighter when it is thin.

Fabric: Hard, compact, well levigated, slightly crumbly fabric, fired to yellowish-red in the core, and lighter pink in the margin. Inclusions include rounded buff patches or voids.

INCLUSIONS	
	1
Colour	Buff
Size	≤1mm
Shape	Well rounded
Freq.	≤3%
Sorting	Fair
ID	Limestone?

Specifications: High to average density, with a compact structure, a gritty feel and an irregular fracture.

Parallels and Dating: 14th–17th century. See SPECLE.1 'Parallels and dating' above.

Origin: South Arabia? See SPECLE.1 'Origin' above.

Class Code: MONTUR

Class Name: Monochrome Turquoise-Glazed Ware

Types: GGW-OR11

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 125

Defining Characteristics: Hard, finely levigated, buff-orange coloured fabric, with occasional coarse inclusions. Vessels are mostly small- to medium-sized, open bowls, with thick, opaque, turquoise blue coloured glaze covering the interior only. Variations on this include vessels with the glaze covering both the interior and exterior, and some closed vessel forms. Some bowls have distinctive 'chattering' marks low down on the exterior.

COLOUR	
Colour	Very pale brown
Core	10YR 8/4
Margin	Same as core
Surface	Same as core

Integrity: Coherent, well defined group.

Vessel Forms: Small or medium-sized bowls, with various rim forms, including one with a distinctive curved flange and triangular section lip. Bases include a heavy, squared foot ring type, or a raised, flat base with a turned, central recess.

Surface Treatment: Mostly only interior surfaces are covered by a thick, opaque, turquoise-blue coloured glaze, which turns pale when degraded. Some vessels, especially smaller bowls, have both interior and exterior surfaces covered. One closed vessel has a chain-ridge around the waist and glaze covering both exterior and interior surfaces.

Fabric: Hard, finely levigated, consistently oxidised, buff-orange coloured fabric, with a fine, powdery structure, and occasional coarse inclusions consisting of large, red grits and discoloured voids.

INCLUSIONS		
	1	2
Colour	Red	Discoloured void
Size	≤2mm	≤1mm
Shape	rounded	Well rounded
Freq.	Occasional	Occasional
Sorting	Fair	Good
ID	Red stony grit	Burnt out mineral?

Specifications: Average density, with a compact structure, a gritty feel and a fine, irregular fracture.

Parallels and Dating: 15th–17th century. The class occurs in the assemblage from Sira. There are no known parallels for the material elsewhere. Nevertheless, the class can be seen as part of the post-Sgraffiato monochrome-glazed tradition of the 14th centuries and later (see MONO.LG1 above). There is also a clear association between this class and some of the underglaze-painted pottery of the same period, although in this case the pottery lacks decoration.

Origin: Southern Iran.

Other Glazed Ware

Class Code: YEMEN

Class Name: Yemeni Yellow

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 126

Defining Characteristics: Open bowls, with simple or everted rims, flat bases and relatively thick walls. The interior and rim exterior are covered by a bright yellow glaze, and decorated with simple hanging loops in brown, or sometimes green. The glaze and painted decoration are generally badly degraded, leaving a powdery surface. The fabric tends to be a strong red, with a blocky, slightly brittle structure.

COLOUR	
Colour	Reddish-yellow
Core	5YR 7/8
Margin	Same as core
Surface	Same as core

Integrity: Coherent, well defined class.

Surface Treatment: Interior and rim exterior covered by a bright yellow glaze, with simple hanging loops painted with brown, or sometimes dark green.

Vessel Forms: Mostly medium-sized, open bowls, with simple, or flange, rims and turned flat bases.

Fabric: Fine, hard, reddish-yellow fabric, with a blocky, slightly brittle structure. The fabric contains only occasional, coarse inclusions, namely small, white flecks, small, linear voids, and fine mica, that is only visible on the surface.

Specifications: Average density, with a compact structure, a gritty feel and a fine, irregular fracture.

Parallels and Dating: 13th–early 14th century. Kennet provides the following information about the dating and distribution of the class (2004: 53): "*This class is known as 'mustard' in Yemen (Hardy-Guilbert and Rougeulle, 1997: 173-4, fig. 1: 6-9) and 'black-on-yellow' in East Africa (Horton, 1996: 291). It appears to be distinct from, and earlier than, Zabidi 'yellow salad' (Mason and Keall, 1988: 454, fig. 3e; Ciuk and Keall, 1996: pl. 95/47: d-g). Keall has however found YEMEN in contexts from the Zabid citadel dated to his 'Islam 4' period (1150 to 1350) - although the dating is based on an arbitrary periodisation and is not certain (Ciuk and Keall, 1996: 4-5, pl. 95/45h). It also occurs at Kilwa in levels of the 14th century and earlier (Chittick, 1974: 304), and at Manda in levels datable to the late 13th to 14th century (Chittick, 1984: 81-82, fig. 39). In fact, Horton has pointed out that it occurs at virtually every late 13th and 14th century site on the East African coast (Horton, 1996b: 291). At Shanga its arrival is dated to about 1250 and it circulated for about a century (ibid.). At Quseir al-Qadim in Egypt it was called 'mustard ware' and is dated to the 13th century (Whitcomb and Johnson, 1979: 106, pls. 37: e g, f; 41: c; 42: b, etc; 1982: 137-8, pl. 37). There is some evidence that the class was manufactured in Yemen, (Doe, 1963: 153)*" (Kennet, 2004: 53).

Origin: Yemen.

Class Code: REDYEL

Class Name: Red Yellow Ware

Types: GGW-OR8

Clay: Earthenware **Production**: Wheel-made **Illustration**: Plate 127

Defining Characteristics: The class has a fine, soft, slightly porous fabric, covered by a clear glaze, which appears bright yellow, with light black speckling over exposed areas. The vessels are all bowls, and are covered on the interior, and/or exterior, with dark red slip, which has been cut through in champlevé style, leaving bright, yellow lines sharply contrasted against the dark, red background. A second version of the same class uses the same device, but has a transparent, turquoise-tinted glaze that appears bright turquoise against the body and black over the slip. Where one surface has been slipped and decorated, the other is generally left plain, and appears either bright yellow, or turquoise. The glaze has an even, soft gloss, without crazing, and generally covers both the interior and exterior, stopping just before the foot.

COLOUR	
Colour	Pale yellow
Core	2.5Y 8/4
Margin	Same as core
Surface	Same as core

Integrity: Coherent and very distinctive class.

Vessel Forms: Small to medium-sized, open bowls, with flared, slightly curving sides and simple rims or rims with beaked, flange profiles.

Surface Treatment: Interior and upper exterior are covered by a dark red slip, which has been cut through to reveal the bright, cream coloured body below. Cut away decoration consists of meandering radial lines or, more often, a series of regularly spaced bands of ‘tear-drop’ shaped gouges filling the interior. Interior and exterior surfaces are covered by a clear, or bright, turquoise tinted glaze.

Fabric: Finely levigated, soft, slightly porous, light yellow earthenware, with no visible inclusions, and a chalky texture.

Specifications: Low density, with a compact but porous structure, a smooth feel and fine fracture.

Inclusions: Generally, none.

Parallels and Dating: 17th–19th century. This is the same as REDYEL in the Williamson Collection (Priestman, 2005a: 271-72, pl. 128) and REDYEL from Ras al-Khaimah (Kennet, 2004: 44). The class is absent from both the Kush and al-Mataf sequences, indicating that it belongs to the post al-Mataf period (Kennet, 2004: 44), i.e. the 17th century or later. In al-Ain the class first appears in Period LI–1a but is absent from the LI–2c assemblage indicating that it went out of circulation before the 20th century (Power, 2015: 11-12, 20 'RED-YEL', figs 7: bottom left, 8, table 3).

Origin: Southern Iraq?

Other Glazed Object

Class Code: GT

Class Name: Glazed Tiles

Types: None defined

Clay: Earthenware **Production**: Moulded **Illustration**: None

Defining Characteristics: Assorted glazed tile fragments with hard, oxidised, cream, or light orange, coloured fabrics. Top surfaces are covered by a thick, opaque glaze that can be monochrome, a combination of glaze colours, or underglaze-painted. Tiles are moulded. Most appear to be rectangular or square.

COLOUR		
Colour	Very pale brown	Light brown
Core	10YR 8/2	7.5YR 6/4
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: Coherent functional category but disparate in terms of fabric composition, glaze type, and form.

Vessel Forms: Large, thick-bodied, square, or oblong, tiles. Also, some more complex forms such as star shapes.

Surface Treatment: Top surfaces, and sometimes sides, are covered by a thick, opaque glaze that can be monochrome, mostly turquoise, or composed of different glaze colours, for example purple and white, or purple and turquoise. Some tiles also have decoration moulded in relief.

Fabric: The body tends to be hard, compact, and reasonably well levigated, with few visible inclusions, and fired to a consistent, oxidised cream, or light orange-brown.

Specifications: Average density, with a compact structure, a gritty feel and a fine, irregular fracture.

Inclusions: Generally, none apart from some voids.

Parallels and Dating: Various.

Origin: Various.

Class Code: KD.1-4

Class Name: Kiln Debris, Groups 1-4

Types: None defined

Clay: Earthenware **Production**: Various **Illustration**: Plates 128-131

Defining Characteristics:

KD.1 – Trivets or crows'-feet. Small, star shaped objects with three spurs. These can be simple and rounded at the ends, or have little down-turned spikes, or feet. Trivets are used as spacers to prevent glazed bowls, or dishes, from becoming stuck to one another during firing. Where they are used, they leave scars on the vessel interior.

KD.2 – Kiln bars. Straight, or often curved, bars each with a round section that thins to a point at the end. Used for stacking glazed vessels during firing.

KD.3 – Clinker. Vitrified residue that accumulates on the inside of kilns. Can be difficult to distinguish from the remains of glass working, or metal production.

KD.4 – Wasters. Heavily melted and disfigured vessels, vessels fused together, or otherwise damaged during firing. Such material can at times be difficult to distinguish from firing 'seconds' (e.g. pots damaged during firing that were still sold on, and not immediately discarded). The find context and other contextual details are often important in accurately identifying true waster material.

Integrity: Coherent functional categories but disparate in terms of fabric, composition and origin.

Surface Treatment: None.

Parallels and Dating: Various.

Origin: Various.

Non-Identified Glazed Ware

Class Code: GW.N-ID

Class Name: Non-Identified Glazed Wares

Types: None defined

Clay: Earthenware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: Assorted glazed ware sherds that cannot be allocated to any particular class. Mostly these are one-off pieces with well preserved surfaces.

Integrity: Assorted.

Vessel Forms: Various.

Surface Treatment: Various glazed.

Fabric: Various.

Parallels and Dating: Not known.

Origin: Not known.

Stoneware Storage Vessels

Class Code: STONE-BLU

Class Name: Green-Glazed Stoneware Jars with Blue Highlights

Types: SSV-CR1

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 132

Defining Characteristics: Small, or medium-sized, jars, with rounded, globular bodies, short, straight, slightly everted rims, and characteristic handles attached at the shoulder. These are formed from a flattened strip applied in a narrow loop with a vertically aligned hole passing through the centre. Other incomplete handles appear to belong to different types but all are distinct from the standard 'butterfly handle' represented on Tang period DUSUN or CHANG ewers and later dated classes. Other characteristics include a hard, grit-tempered, light grey, or yellow-buff, coloured stoneware body and thin, greyish, or yellowish-green, coloured glaze covering the exterior, and rim interior. The glaze invariably has brown freckles caused by the inclusions within the clay reacting with the glaze, as well as scattered patches of light, duck-egg blue, with a powdery appearance forming on the surface.

COLOUR		
Colour	Grey	Grey/Greyish-brown
Core	N 6/0	N 6/0
Margin	Same as core	10YR 5/2 (inner)
Surface	Same as core	Same as margin

Coherence: Just three sherds for the class represented within the assemblage from Siraf. In all examples the fabric and glaze appear consistent, while typologically each piece is different.

Vessel Forms: Typically, a small- or medium-sized jar, with a globular body, and a short, straight, slightly everted rim. Vertically aligned handles, attached at the shoulder, are formed from strips folded over in a tight loop with narrow holes passing through the centre.

Surface Treatment: Exterior surfaces, and the rim interior, are covered by a thin, light greenish-grey coloured glaze, with no crazing, and regular brown freckles produced by iron bearing inclusions within the clay. In addition, the glaze has scattered patches of light white or duck-egg blue that form as a skin on the surface. Apart from the glaze, the surfaces are plain.

Fabric: Hard, compact, fully vitrified stoneware, fired to a light grey, sometimes turning to yellowish-buff through the core and inner margin. The fabric contains frequent, black, or brown, iron-bearing inclusions.

INCLUSIONS	
	1
Colour	Black/brown
Size	≤2mm
Shape	Sub-rounded
Freq.	2–5%
Sorting	Poor
ID	Iron bearing grit

Specifications: High density, with a compact structure, a fine, gritty feel and a clean, sub-conchoidal fracture.

Parallels and Dating: 7th–early 8th century. The two most distinctive features associated with the class (vertically aligned handles and the light blue mottling on the surface) are both characteristics associated with pottery of the Sui or Early Tang periods, roughly dating to the 7th century or early 8th century (Krahl, pers. comm. 2009). If this identification is correct, the three sherds of STONE-BLU from Siraf may well represent the earliest dated Chinese pottery known from a western Indian Ocean context.

Origin: China, region unknown.

Class Code: STONE-BG1

Class Name: Black-Glazed Stoneware Storage Jars, Group 1

Types: SSV-CR2, B1, H1

Clay: Stoneware **Production**: Handmade **Illustration**: Plate 133

Defining Characteristics: Large, handmade jars, with irregular scraped surfaces, often leaving distinctive 'chattering' marks on the exterior. Exterior surfaces are covered by a dark, black, iron glaze that can appear glossy and metallic, or dull and grey. The fabric is hard, compact, fully vitrified, and fired to a dark reddish-purple, turning to grey on the inner surface. The core contains thin yellow swirls and occasional varied coarse inclusions.

COLOUR	
Colour	Weak red/Dark bluish grey
Core	10R 4/2
Margin	10B 4/1 (inner)
Surface	Same as inner margin

Integrity: Coherent and very distinctive class.

Vessel Forms: Large storage jars, with flat, slightly concave bases, wide, flat, horizontally aligned 'butterfly' handles, and short, everted rims. The class is well represented in the assemblage from Siraf, but few diagnostic sherds have been recovered, so the rim type has not been precisely determined.

Surface Treatment: Surfaces are pitted and irregular, with heavy scraping marks often leaving a distinctive 'chattering' effect on the exterior, and unidirectional striation marks on the interior. Most vessels are glazed on the exterior, with the glaze stopping at the base. In a few cases the glaze covers both the interior and exterior surfaces. The glaze is a dark, black iron-glaze, which can appear glossy and metallic, or dull and grey. The thin quality of the glaze, and the variations of lustre, indicate that it may simply be a fly-ash glaze, rather than a true, applied, surface finish.

Fabric: Hard, compact, fully vitrified stoneware, fired to a dark reddish purple in the core, turning to grey towards the inner margin. The core has a marbled appearance, with thin, swirling layers of yellow, and occasional, varied, coarse inclusions.

Inclusions: Occasional and varied.

Specifications: High density, with a compact structure, a gritty feel and clean, sub-conchoidal fracture.

Parallels and Dating: Mid-8th–early 9th century. There are no known parallels for this pottery from East Asia. Identical pottery has been recovered from Level III at Sohar, where it has been dated by the excavators to the 5th century (Kervran, 2004: fig. 12: 24, pl. 22: 1-2). If this were correct, it would represent the earliest dated Chinese pottery from a Middle Eastern context. However, the dating of the Sohar sequence is subject to controversy (Kennet, 2007: 99). Other pottery from Level III, particularly the presence of applique decorated TURQ.T, indicates a more plausible date for these layers within the 8th century. At Siraf, STONE-BG1 is amongst the earliest East Asian pottery classes to occur at the site. A significant concentration of the material occurs within the foundation platform of the Great Mosque, which numismatic evidence indicates was erected no earlier than AD *c*. 803–04 (Whitehouse, 1973: 246-47, 251, pl. 18.2: c-d). Examples are also represented from Mantai (see British Museum registration numbers: 2007,3027.9, 11-16).

Origin: The class is certainly from East Asia, though convincing parallels from that region have not yet been established.

Class Code: STONE-BG2

Class Name: Black-Glazed Stoneware Storage Jars, Group 2

Types: SSV-CR2, H1

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 134

Defining Characteristics: Large, handmade jars, with rough, uneven surfaces, and a coarse, dark grey, fully vitrified, stoneware fabric, with rounded, white, crystalline inclusions. A freckled, dark green and brown glaze, with large iron spots covers the exterior. Vessels all appear to be large storage jars with short, rounded, horizontally aligned 'butterfly handles', attached at the shoulder.

COLOUR	
Colour	Dark bluish-grey
Core	5PB 4/1
Margin	Same as core
Surface	Same as core

Integrity: The class is represented by a small sample within the assemblage from Siraf. The material is distinctive and clearly differentiated from STONE-BG1, though the vessel type is similar.

Vessel Forms: Large storage jars with rounded globular bodies, short, everted rims and short, thick, horizontally aligned 'butterfly handles', attached at the shoulder.

Surface Treatment: Exterior surfaces are covered by a simple, freckled dark green and brown glaze with a pitted, uneven surface. Occasional large spots of iron erupt on the surface.

Fabric: Hard, compact, fully vitrified, coarse, dark grey, fired stoneware, with numerous rounded crystalline inclusions, and some fissures and voids through the matrix.

INCLUSIONS	
	1
Colour	White
Size	<0.1–1.5mm
Shape	Sub-rounded
Freq.	3%
Sorting	Good
ID	Quartz?

Specifications: High density, with a compact structure, a gritty feel and a clean, slightly irregular fracture.

Parallels and Dating: Mid-8th–early 9th century. There are no known parallels for this class, though general similarities with STONE-BG1 suggest that the material is most likely to be of similar date (see above).

Origin: East Asia.

Class Code: DUSUN

Class Name: Dusun Green-Glazed Stoneware Storage Vessels

Types: SSV-CR3-4, OR1, B1, H1

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 135

Defining Characteristics: Heavy, thick-walled vessels, covered on the interior, and exterior above the base, with thin, uneven, finely crazed, olive-green glaze that has a tendency to puddle and slip. The fabric tends to be a light coloured stoneware, but the precise composition varies extensively. Several distinctive vessel categories occur, including a large storage jar with a distinctive unglazed vertical collar rim, and a series of round section 'butterfly' handles attached to the shoulder (CR3). Other types include a small- or medium-sized version of the jar, with a rolled and everted rim (CR4), and also a robust, flat-bottomed basin, with steep sides and an unglazed 'T' shaped rim, fired to a rusty reddish-brown (OR1).

COLOUR		
Colour	Grey	Very pale brown
Core	N 4-5/1	10YR 7/4
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Coherence: The class displays extensive variation in fabric composition, firing, glaze colour and glaze quality. The material is clearly derived from more than one production centre but is part of a consistent production tradition.

Vessel Forms: The most typical form is a large, barrel-shaped jar, with a flat base, a straight collar neck and several short, thick, horizontally aligned, 'butterfly' handles around the shoulder (CR3). Other types include small- and medium-sized versions of a similar jar, with short horizontal 'butterfly' handles attached at the shoulder, and a rolled and everted rim (CR4). There is also a large, thick-walled open basin, with a flat base, steep, near-straight sides, short flattened 'butterfly' handles attached below the rim, and a 'T' shaped rim that is sometimes turned at a slight inward angle (OR1).

Surface Treatment: Interior and exterior surfaces are covered by a patchy, dark to light, olive-green coloured glaze, which stops at the rim and before the base. The glaze is finely crazed and has a strong tendency to puddle and slip, sometimes leaving portions of the body bare. Where the body is exposed, it can appear a sandy-buff or rusty reddish-brown. A few vessels have marks inscribed into the body before glazing.

Fabric: Hard, compact, mostly grey, or buff, coloured fabric, with occasional coarse grit inclusions, and different levels of sintering from fully to partially vitrified. In its partially vitrified form, the fabric appears buff or orange.

Inclusions: Occasional varied coarse inclusions.

Specifications: High density, with a compact structure, a fine, gritty feel and an irregular, sub-conchoidal fracture.

Parallels and Dating: Mid-8th–10th century. This is the same as DUSUN in the Williamson Collection (Priestman, 2005a: 304, pl. 169). This is the most common category of East Asian pottery from Siraf and amongst the earliest to arrive at the site. DUSUN jars and bowls have been recovered from the fill of the Great Mosque foundation platform dated to before AD *c.* 803–04, as well as from below a floor associated with an 8th century building in use before the foundation platform was established (Whitehouse, 1973: 244-46). As durable storage containers, DUSUN vessels have the potential to remain in circulation long after their initial period of production. At Siraf, the class appears to drop off in frequency during the 11th century, though a few vessels may have continued to be used beyond their main period of production (Whitehouse, 1973: 251). The most common DUSUN vessel type is the large storage jar (CR3), examples of which were used as transport containers for stacks of Changsha bowls on board the Belitung wreck discovered off the coast of Indonesia (Guy, 2001-02: 15, 19). Transport vessels with strap handles and a simple, green ash glaze, are part of a long-lived tradition in China extending from at least the Eastern Jin period (i.e. 4th–5th century AD) (for an early example see Lam, 1986: 132-33, cat. 21 from Tomb 10 at Xine, Shaoguan) to about the 12th century. Within this long range, there may be particular features that allow one to distinguish between the products of different periods.

Origin: Guangdong and Fujian Provinces, South China. The class was manufactured at a number of kilns within Guangdong and Fujian Provinces close to the ports of South China (Krahl, 2010a: 199).

Class Code: MTB-1

Class Name: Martaban Black-Glazed Stoneware Storage Jars, Group 1

Types: MTB-CR1

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 136

Defining Characteristics: Small to medium-sized globular jars, with coarse, grey, black-grit tempered, stoneware bodies, covered over the exterior with a finely crazed, patchy, dark olive-green, or black iron-glaze, which is often badly degraded, leaving only speckles of glaze or no glaze at all.

COLOUR		
Colour	Light bluish-grey, light greenish-grey	Light bluish-grey, light grey
Core	5PB 7/1	5PB 7/1
Margin	Same as core	Same as core
Surface	10Y 7/1	5Y 7/1

Integrity: Although the term 'Martaban' can be applied to a much broader and fairly ill-defined tradition of brown/black-glazed storage jars produced widely in East Asia over several centuries, MTB-1 is a specific class with consistent and distinctive characteristics.

Surface Treatment: Interior surfaces are plain, while exteriors are covered by a dark brown, or black, glaze. Surfaces are generally otherwise plain, though some pieces have incised lines. There are also a few pieces with embossed characters or with appliqué decoration.

Vessel Forms: Small to medium-sized jars, with rolled rims, short necks, globular bodies, flat or concave bases and a series of small, horizontally aligned 'butterfly' handles attached at the shoulder.

Fabric: Fully vitrified, light grey stoneware, with high levels of coarse inclusions, including poorly sorted, sub-rounded black elements, and occasional large, rounded, translucent grains.

INCLUSIONS		
	1	2
Colour	Black	Translucent white
Size	<0.5–4mm	1–4mm
Shape	Sub-rounded	Rounded
Freq.	7–10%	<1%
Sorting	Poor	Fair
ID	Hard black grit	Translucent grit

Specifications: Dense and vitrified, with a rough feel and a clean, sub-conchoidal fracture.

Parallels and Dating: 14th–17th century. The class occurs at al-Mataf from Phase II of the Mosque sequence, suggesting that it came into circulation within the Persian Gulf region from the 14th century and continued at least until the early 17th century when the site was abandoned (Kennet, 2004: 50, table 7).

Origin: Southeast Asia.

Class Code: MTB-2

Class Name: Martaban Black-Glazed Stoneware Storage Jars, Group 2

Types: MTB-CR1

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 137

Defining Characteristics: Coarse, grey, stoneware jars, with black glaze similar to MTB-1 but having a number of key distinctions. The jars appear to fall predominantly within the larger size range and have a concave base. Other key differences include the fabric, which has fewer coarse inclusions. Interior, and exterior, surfaces are covered by a thin iron-wash. Exterior surfaces are also covered by an iron-glaze, which is often degraded and can be worn away altogether, though not as frequently as with MTB-1.

COLOUR		
Colour	Grey, light grey	Light olive-grey, light grey
Core	N 4-5/1	5Y 6/2
Margin	Same as core	Same as core
Surface	5Y 7/2	5Y 7/2

Integrity: Although the term 'Martaban' can be applied to a much broader and fairly ill-defined tradition of brown/black-glazed storage jars produced widely in East Asia over several centuries, MTB-2 is a specific class with consistent and distinctive characteristics.

Surface Treatment: Interior, and exterior, surfaces are covered by a thin iron-wash, which leaves a streaky, or blotchy, effect on exposed surfaces. Exterior surfaces are also covered by an iron-glaze, which stops before the base, and appears variegated in colour, with patches of dark olive-green, brown, very dark brown and creamy-grey.

Vessel Forms: Small to medium-sized jars, with rolled rims, short necks, globular bodies, concave bases and a series of small, horizontally aligned 'butterfly' handles attached at the shoulder.

Fabric: Fully vitrified, fine, grey stoneware, with only very occasional, coarse inclusions.

INCLUSIONS		
	1	2
Colour	Black	Translucent white
Size	≤0.5mm	0.5–1.5mm
Shape	Rounded	Sub-rounded
Freq.	<1%	<1%
Sorting	Good	Good
ID	Black grit	White grit

Specifications: Dense and vitrified, with a rough feel and a clean, sub-conchoidal fracture.

Parallels and Dating: 14th–17th century. The class may have a similar date range to MTB-1, although it appears to correspond closely to the description of BSTONE, a few sherds of which occur at al-Mataf between Phase II–III of the Mosque sequence and Period III of the Occupation area, which are dated slightly more narrowly between the 14th–16th centuries (Kennet, 2004: 50, tables 7-8).

Origin: Southeast Asia.

Painted Stoneware

Class Code: CHANG

Class Name: Changsha Ware

Types: CHA-OR1-2, CR1, B1-2, H1, SP1-2, F1

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plates 138-139

Defining Characteristics: Glazed and painted stoneware, with a hard, compact, sandy grey, yellow, or orange, fabric. Vessels occur in a restricted range of forms, either medium-sized open bowls or low jars with fine spouts and handles. Exterior surfaces of jars, and interiors and upper exteriors of bowls, are generally covered by a lighter slip and a transparent, greenish-yellow tinted glaze. Bowls are also decorated with brown, green and occasionally blue painted floral or abstract decoration. Jars are decorated with patches of brown and detailed floral mouldings floated on the surface.

COLOUR			
Colour	Grey	Pale yellow	Light reddish-brown
Core	N 6/1	2.5Y 7/3	5YR 6/4
Margin	Same as core	Same as core	Same as core
Surface	Same as core	Same as core	Same as core

Integrity: Coherent and very distinctive.

Vessel Forms: Two main types are represented within the class, an open bowl and a spouted jar. Some variation occurs within each of these. Typically, bowls are medium-sized, with curved walls, and simple, or gently everted, rims. Their bases are thick, with fairly crudely turned foot rings, square outer edges and chamfered inner faces. Another base type has a wide, low, flat foot ring, with a small, turned, central depression. Jars have wide, flat bases that angle slightly inwards at the wall junction. The shoulders curve back gently to a sharp angle at the neck. Necks can be straight or curved and lips are sharply everted. Jars are provided with short, rounded, or faceted, spouts, with short, looped strap handles on the opposing sides, formed from three thin coils joined in a strip.

Surface Treatment: Exteriors of jars, and the interior and part of the exterior of bowls, are generally covered by a lighter coloured slip and a transparent, yellow, tinted glaze, with a soft, glossy surface and fine, non-distinct crazing. Interiors of bowls have painted decoration applied with dynamic strokes in brown, green, and occasionally blue. Segments of the rims of bowls are often dipped in brown iron-rich slip. On jars, the main form of decoration is finely detailed, moulded floral elements, floated onto the surface, and painted in brown pigment. A few pieces appear to have been slipped and glazed, but otherwise they are left plain.

Fabric: Hard, compact, sandy textured, light grey, buff-yellow, or orange, stoneware, with occasional, fine red, or black, grits and some voids. The fabric is hard-fired, but ranges from being partially vitrified to well sintered; it could therefore be classified either as a high-fired earthenware, or a low-fired stoneware.

INCLUSIONS	
	1
Colour	Black/red
Size	≤1mm
Shape	Rounded
Freq.	Occasional
Sorting	Fair
ID	Partially voided red or black grit

Specifications: High density, with a compact structure, a rough feel and a sub-conchoidal fracture.

Parallels and Dating: Mid-8th–9th century. This is the same a CHANG in the Williamson Collection (Priestman, 2005a: 307, pl. 168). Although excavations have taken place at the main production site for Changsha ware in Hunan Province, these do not appear to provide clear evidence for any significant changes in the temporal development of the industry (Mak, 1998). Within the Chinese ceramic literature, all products of Changsha are presented together from the mid-8th century up to the collapse of the Tang dynasty at the beginning of the 10th century. At Siraf, some evidence is available to support a possible developmental transition within the industry. Painted CHANG bowls are amongst the earliest Chinese pottery to occur in the sequence at Siraf. Large quantities of pieces come from the fill of the Great Mosque foundation platform, which was completed after AD 803–04. Pieces from the foundation platform fill include both brown and green painted bowls, with portions of the rim dipped in brown. The assemblage also includes a bowl type that is generally smaller, which only has green painted decoration consisting of clusters of dots set at intervals around the rim (Whitehouse, 1973: 248-49, pl. 18.3: a-d). Whitehouse observed that the latter variant appears to go out of circulation earlier at Siraf than the bichrome painted version. A massive cargo of 56,500 Changsha bowls were recovered from the Belitung shipwreck off the coast of Indonesia, mostly likely dated from the AD 840s (Wilson and Flecker, 2010: 37). Green spotted Changsha appears to be absent from the Belitung cargo, perhaps reconfirming the idea that this variant went out of circulation before the mid-9th century. The other major vessel type represented within the Changsha export assemblage is a wine-ewer with applied decoration (CHA-CR1, SP1-2, H1, B1). At Siraf, these do not appear within the assemblage until after the construction of the Great Mosque (post-AD 803–04), some time after the initial import of Changsha bowls in the mid-late 8th century (Whitehouse, 1973: 251-52). At what point during the early 9th century wine-ewers first came into circulation has not yet been established, but certainly by the AD 840s, vessel identical to those from Siraf are well represented amongst the thousands of vessels contained within the Belitung cargo (Liu Yang, 2010: 157-58).

Origin: Changsha, Hunan Province, South China.

<u>White Stoneware</u>

Class Code: GWSG.1-2

Class Name: Green and White Splash-Glazed Ware, Groups 1-2

Types: WST-OR1-3, B2

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plates 140-141

Defining Characteristics: Fine, dense, white stoneware, covered on the interior and exterior with a white slip and a slightly opaque, white glaze, with splashes of bright green, occasionally combined with splashes of yellow. The glaze has a slight yellowish tint and shows up cream against the body. The green splashes are applied as spots, or vertical streaks, and have a tendency to run and diffuse at the edges. All vessels are open bowls, or dishes, with squared foot rings and simple, rounded rims.

GWSG.1 – The sub-class includes all pieces with bluish-green coloured splashes, though some variation occurs in the tone of the pigment and some examples have a more yellowish-green hue. The most common decorative arrangement is for regularly arranged rows of spots. Some pieces also have vertical streaks. GWSG.1 also includes occasional examples with a combination of yellow and green splashes.

GWSG.2 – All pieces have very diffused, randomly arranged splashes of green. The green has a distinctive, bright yellowish-hue, and the glaze a particularly lustrous surface and relatively coarse crazing. In other respects, the two sub-classes appear to be the same.

Colour: White throughout the core and margin.

Integrity: Coherent, well defined class. The class can at times be difficult to distinguish from imitations of the material, particularly those manufactured in a fine, cream coloured fabric from Iraq (SPLASH.GW1). At the same time, there do appear to be a range of appreciable differences. In particular: the body tends to be harder and more compact; the glaze is better fitted and thus it tends to be better preserved; the splashed colour is brighter, slightly less diffuse and arranged more regularly, often in spots. In addition, the glaze has a fine, hairline crazing, which appears to be diagnostic.

Vessel Forms: Small to medium-sized, open bowls, and dishes, with squared, and bevelled, foot rings and simple rounded rims. Common rim types include one that is gently everted (WST-OR2) and one that is straight (WST-OR1). Dishes have long, straight, or slightly everted, flanges.

Surface Treatment: Interior and exterior surfaces appear to be covered by white slip that stops immediately before the foot. This is then covered over with a transparent, slightly yellow, tinted glaze, splashed with bright patches of green, occasionally combined with yellow. The splashes are either arranged as a series of regularly laid out, closely spaced spots, or as vertical steaks. In either arrangement the spots of colour diffuse at the edges and run out into the glaze.

Fabric: Hard, compact, finely levigated cream, or white, coloured fabric, with no visible inclusions and a fine, 'chalky' quality that differentiates the body from porcelain. The fabric is fired to a high temperature and could be classified either as a white stoneware, or high-fired earthenware.

Inclusions: None.

Specifications: Dense and compact, with a hard, smooth feel and a clean, sub-conchoidal fracture.

Parallels and Dating: 9th–10th century. This is the same class as GWSG in the Williamson Collection (Priestman, 2005a: 307-08). Lots of kilns produced small quantities of white ware with green splashes but rarely in the form of bowls. No large kilns have been discovered that specialised in the production of this material (Krahl, pers. comm. 2008). Within a Middle Eastern context, GWSG is fairly common, suggesting that it may have been produced largely as an export ware. Amongst the Belitung cargo there are a number of pieces of GWSG with diffuse, randomly arranged olive-green coloured splashes equivalent to GWSG.2 from Siraf (Hsieh Ming-liang, 2010: fig. 117). GWSG.1 with regularly arranged bluish-green coloured spots does not occur within the Belitung cargo, pointing towards the possibility of a slightly later date for this material or a different centre of production. A good parallel for what

appears to be the most common form with a rolled rim comes from the Tang period tomb number 13 at the Sanmenxia Chemical Plant in Henan Province (Bai Zhang, 2008a: pl. 65).

Origin: Henan Province, North China.

Class Code: GYSG

Class Name: Green on Yellow Splash-Glazed Ware

Types: WST-OR3

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 142

Defining Characteristics: Fine, dense, white stoneware covered on the interior, and exterior, with white slip and clear, glossy, bright yellow glaze, with diffuse splashes of green. The green splashes are applied as vertical streaks, mostly on the interior and, to a lesser extent, on the exterior.

COLOUR		
Colour	Pink	Light yellowish-brown
Core	7.5YR 7/4	2.5Y 6/3
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: The class is represented by just two sherds in the assemblage from Siraf in the British Museum. Both are consistent but a larger sample would be required to determine the range of potential variation.

Vessel Forms: Medium-sized open dishes, with wide, gently curving flanges and rounded lips.

Surface Treatment: Interior, and exterior, surfaces covered by a white slip and a clear, glossy, bright yellow tinted glaze, with diffuse splashes of green, which turns darker where it mixes with the yellow.

Fabric: Hard, compact, finely levigated, light orange, or buff-grey, coloured fabric, with no visible inclusions, and a fine, grainy structure.

Specifications: Dense and compact, with a hard, smooth feel and a clean fracture.

Inclusions: None.

Parallels and Dating: Mid–late 9th century. There are no known parallels for this material either in the Middle East or China, however the obvious similarities with GWSG suggests that the two classes most likely share the same dating (see above).

Origin: North China.

Class Code: GM

Class Name: Green-Glazed Moulded Ware

Types: WST-OR4

Clay: Stoneware **Production**: Moulded **Illustration**: Plate 143

Defining Characteristics: Small, thin-walled vessels, with pure white, stoneware bodies, intricate moulded decoration, and glaze that is either coloured bright green, or is clear and slightly yellow tinted, showing up cream against the body with splashes of green. The green splashes are applied as spots or vertical streaks and have a tendency to run, diffusing at the edges and puddling in the depressions created by the moulded decoration.

Colour: White throughout the core and margin.

Integrity: Coherent and very distinctive.

Vessel Forms: Small, thin-walled, shallow, open dishes, generally with simple, rounded rims. Examples also exist of a rim with shallow notches, or with indentations in the wall, and a scalloped edge.

Surface Treatment: Vessels are moulded with intricate relief decoration filling the interior. In addition, the surfaces are covered by a clear, glossy glaze. The glaze can be coloured monochrome green or transparent, slightly yellow tinted, white, with green splashes applied as spots or vertical streaks.

Fabric: Hard, compact, finely levigated, cream, or white, coloured fabric, with no visible inclusions and a fine, 'chalky' quality. The fabric is fired to a high temperature and could be classified either as a white stoneware, or high-fired earthenware.

Inclusions: None.

Specifications: Dense and compact, with a hard, smooth feel and a clean, sub-conchoidal fracture.

Parallels and Dating: 10th century (Lio or Northern Song). The fabric and green splashed decoration on some pieces suggest similarities with GWSG, though moulded vessels are believed to be generally later (Krahl, pers. comm. 2008). Green moulded ware does not occur within the Belitung cargo, which most likely dates to the AD 840s.
Origin: North China.

Class Code: WWSL

Class Name: White-Slipped Stoneware

Types: WST-OR1-2, B1, B3

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 144

Defining Characteristics: Relatively thick-walled vessels, most typically medium-sized, open bowls, with squared foot rings, and gently everted rims. Bowls have several slight notches around the circumference and raised vertical ridges on the interior. Surfaces are covered by a white slip and a,

slightly yellow, or green, tinted glaze, which appears thick and opaque, with very fine crazing, and a soft, even gloss. The body is dense and compact, with occasional black grit inclusions. It is fired to yellowish-white, or sometimes pale grey.

COLOUR	
Colour	Pale yellowish-white or Light greenish-grey
Core	N 8/1
Margin	Same as core
Surface	Same as core

Integrity: Distinctive and coherent class.

Vessel Forms: Mostly small- and medium-sized, open bowls, with relatively thick walls, squared foot rings, curved sides and gently everted rims with rounded lips. The lips have several light depressions around their circumference accompanied by low, vertical ribs running down the interior walls. As the vessels are fragmentary, it is not clear whether all vessels have these ribs. Some other one-off types are also attested including a flat dish, a bowl with a flat base, and a large, thick-walled basin, with a sharply angled flange rim.

Surface Treatment: Interior and exterior surfaces are covered by white slip, presumably to obscure the impurities within the body. This is then covered with a glaze that appears thick and slightly opaque. The glaze appears yellowish-cream coloured over a white body, or slightly green where the body is partially reduced. The glaze has very fine hairline crazing and a soft glossy surface where it is well preserved. All parts of the surface are covered apart from the foot.

Fabric: Hard, compact, finely levigated, creamy-white, or light grey, coloured fabric, with occasional small, black inclusions. The fabric can either be fine and grainy, or slightly glassy. The fabric is fired to a high temperature and could be classified either as a white stoneware, or high-fired earthenware.

INCLUSIONS	
	1
Colour	Black
Size	≤1mm
Shape	Rounded
Freq.	Occasional
Sorting	Good
ID	Black grit, sometimes party burnt out

Specifications: Dense and compact, with a hard, smooth feel and a clean, sub-conchoidal fracture.

Parallels and Dating: Mid-9th–10th century (late Tang or early Song period). This is the same as WWSL in the Williamson Collection (Priestman, 2005a: 287-88). The best known, and highest quality slipped white wares were produced at the Gongxian kilns in the Gongyi area, Henan Province, together with a rarer version with cobalt-blue painted decoration. A good parallel for the main form represented with raised internal ribs and slight notches in the rim comes from the Tang dynasty tomb of Beiyaowan; excavated in 1992 in Gongyi city close to the main kiln production site (Bai Zhang, 2008a: pl. 61). Inferior versions of slipped white ware were manufactured elsewhere within South China, though little is currently known about the major centres catering for the export demand.

Origin: Gongxian, Henan Province, or elsewhere in South China.

Class Code: CIZHOU

Class Name: Cizhou Ware

Types: None defined

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 145

Defining Characteristics: Medium-sized jars with fine, grainy, white, stoneware bodies, and distinctive decoration consisting of elements painted in black, with lines incised through to reveal the contrasting white body below. The background colour of the glaze is an opaque off-white.

Integrity: The class is represented by a single sherd from the Williamson Collection. A larger quantity of material would be required to determine the extent of potential variability within the class.

Surface Treatment: Covered with a clear, off-white coloured glaze, painted with washes of black that have been incised through to reveal the contrasting white body below.

Vessel Forms: Closed jar forms.

Fabric: Hard, compact, off-white coloured stoneware, with a fine, 'dry', grainy structure, and occasional fine, black inclusions.

Specifications: Dense and compact, with a hard, smooth feel and a clean, sub-conchoidal fracture.

Parallels and Dating: 14th century. Similar examples of black and white Cizhou jars come from the Shinan shipwreck cargo dated to AD 1323 (Anon. 2006: pl. 150).

Origin: Cizhou, Hebei Province, South China.

<u>Green-Glazed Stoneware</u>

Class Code: STONE-GU

Class Name: Guangdong Green-Glazed Stoneware

Types: YUE-B1

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 147

Defining Characteristics: Small to medium-sized bowls, and dishes, with solid, turned bi-disc, or flat, concave feet, and simple, rounded rims. One dish type has a wide flange rim. Vessels are glazed on the interior and exterior, with the glaze stopping before the feet. Bowls also have three large, unglazed square patches in the interior, for stacking during firing. The glaze is glossy, coarsely crazed, has a slight tendency to puddle, and ranges in colour from light bluish-, to yellowish-green. The fabric is a coarse yellowish-buff, or sometimes light grey, coloured stoneware that contains some mixed coarse inclusions, mostly quartz grains and dark grey, or reddish, flecks and voids.

COLOUR		
Colour	Very pale brown	Grey
Core	10YR 8/3	10YR 5/1
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: Reasonably distinctive class, particularly in the examples with bi-disc bases and square patches of glaze removed.

Vessel Forms: Small to medium-sized open bowls, and dishes, with simple, rounded, or straight, flange rims, and thick turned bases. Bases are either flat and slightly concave, or more often of the bi-disc type with a chamfered outer edge, a slightly concave interior and a small, flat, circular depression in the centre.

Surface Treatment: Interior and exterior surfaces are covered by a coarsely crazed, greenish-blue, or yellowish-green, coloured glaze, that has a tendency to puddle. The glaze can stop at the base, or continue over the base, with three large roughly square patches freed for stacking during firing.

Fabric: Coarse, low-fired stoneware, fired to a yellowish-buff, or sometimes light grey. The fabric is compact, but fractures irregularly, and contains varying levels of mixed, coarse inclusions and voids. Common elements include larger quartz grains, and small, dark grey, or reddish, flecks that appear to diffuse into the matrix at the edges.

INCLUSIONS		
	1	2
Colour	Translucent white	Black/red
Size	≤1mm	≤0.5mm
Shape	Sub-rounded	Sub-rounded
Freq.	2–3%	Occasional–3%
Sorting	Good	Very good
ID	Quartz	Dark flecks

Specifications: High density, with a compact structure, a gritty feel and an irregular fracture.

Parallels and Dating: Early–mid-9th century. At least one example of a very closely comparable vessel (with a bi-disc base and square patches of glaze freed from the foot) was recovered from the cargo of the Belitung wreck, which is most likely datable to the AD 840s (Krahl, pers. comm. 2009). This vessel is typologically closely related to early straight-sided conical YUE bowls, with bi-disc bases dated to the same period (YUE-OR1). Other examples have been recovered from excavations conducted within Guangdong Province (Lam, 1986: No. 95) and from Shenwancuu on Chilajiao Island in Hong Kong (Lam, 1986: 222-23, cat. 94: bottom right).

Origin: Guangdong Province, South China.

Class Code: YUE.1-4

Class Name: Yue Ware

Types: YUE-OR1-6, B1-8, CR1, L1, F1-2

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plates 148-156

Defining Characteristics: Generally, small- and medium-sized bowls, with thin walls and a subdued greenish-grey, or yellow-green, coloured glaze, with a soft, even sheen. The glaze covers both the interior and exterior. Vessels were often stacked for firing and have scars from this on the base underside and within the vessel interior. The fabric is a fine, hard, compact, fully vitrified, pale grey, or yellowish-grey, coloured stoneware, sometimes with fine, black inclusions. Four sub-classes have been defined within the Yue ware class. These are defined purely on the basis of typological grounds and are grouped according chronological criteria. There are no appreciable differences in glaze, or fabric, between the four groups, apart from certain examples where quality is defined at a type-specific level.

YUE.1

OR1: Conical straight-sided bowl with a rounded lip. The lip sometimes has slivers of brown where the glaze has partially slipped and is particularly thin.
B1: Flat bi-disc base with a small central concavity and spur marks around the edge of the foot.

YUE.2

OR4: Bowls with four or five shallow vertical indentations in the exterior wall. Rims are gently lobed or plain and either slightly everted or straight.
F1: Bowls with a well fitted glaze, simple, wide-lined, incised decoration in the interior, and high, flared foot rings with spur marks on the bottom of the feet.
L1: Box or openwork incense burner with a pointed thumb-knob on top.

YUE.3

OR2: Straight bowl rim with a pointed lip, or a slight curve in the wall.
OR3: Gently everted bowl rim.
OR6: Slightly closed bowl rim, with strongly curving sides.
B2: Bowl base with a low, wide, squared foot ring, with chamfered edges and a ring of closely spaced white teardrop shaped spur marks around the vessel interior and the bottom of the foot.
B3: Bowl base with a low, wide, squared foot ring, with chamfered edges and spur marks around the bottom of the foot, but not within the interior. YUE-B3 vessels are often smaller than YUE-B2 and include examples with a better fitted glaze.
B4: Bowl base with a tall, straight, pointed foot ring, with a curved interior profile, and spur marks on the bottom of the foot.
B6: Bowl with a curved, recessed base, with spur marks around the edge of the recess.

YUE.4

OR5: Lobed-rim bowl, with long, curving lobes, and a straight, or gently everted, lip.
B5: Bowl base with a tall, straight, pointed foot ring, with bar-shaped spur marks within the interior of the foot. The vessel interior also has an incised ring at the break of angle between the base and wall.

B7: Bowl with a curved recessed base, similar to YUE-B6 but with a slight lip at the edge of the recess and bar-shaped spur marks within the foot.
B8: Bowl base with a tall, flaring pointed foot ring, a curved interior profile and intricate fine-lined incised decoration.
CR1: Small, cylindrical lidded box, with a plain exterior, or carved lotus petals with fine-lined, incised decoration.

COLOUR		
Colour	Light bluish-grey	Light grey
Core	5PB 7/1	10YR 7/2
Margin	Same as core	Same as core
Surface	Same as core	Same as core

Integrity: Some variation in glaze colour and quality, but as a whole consistent and coherent.

Vessel Forms: Mostly small- and medium-sized open bowls, with straight, or gently everted, rims and various forms of foot (see above).

Surface Treatment: Interior and exterior surfaces are covered by thin, pale greenish-grey, or yellowish-green, coloured glaze, with a soft, even sheen, and no crazing. Further common forms of decoration include gently lobed rims, vertical indentations in the walls, and fine-lined, incised decoration cut into the body.

Fabric: Fine, hard and compact, pale grey, or yellow-grey, coloured fabric, with no visible inclusions, or sometimes very fine, black flecks. There appears to be some variation in the fabric composition and quality, but at least some of this may be attributed to differences in firing.

INCLUSIONS	
	1
Colour	Black
Size	≤0.1mm
Shape	Sub-angular
Freq.	0–3%
Sorting	Very good
ID	Black flecks

Specifications: High density, with a compact structure, a smooth feel and a clean, sub-conchoidal fracture.

Parallels and Dating: 9th–10th century. Specific types within the Yue ware tradition can be dated more closely.

YUE.1: Early–mid-9th century. Conical bowls with bi-disc bases (OR1, B1) occur within the Belitung cargo most likely dated to the AD 840s, though they were first introduced somewhat earlier than this date, before the adoption of the projecting foot ring.

YUE.2: Mid-9th century. Bowls with vertical indentations in the wall, and simple, broad-lined, incised decoration, and a well fitted glaze (OR4 and F1), find close parallels in the Yue ware from the Belitung Cargo, which is most likely dated to the AD 840s.

YUE.3: 9th century. The forms within YUE.3 are less closely dated but can generally be distinguished from later Yue ware vessels of the 10th century (see below). Roughly made Yue ware bowls with rings of stacking spurs within the interior (B2) are similar to examples excavated from Ningbo within a context dated to AD *c*. 806–20 (Lin Shimin, 1994: 144-45).

YUE.4: 10th century. Bowls with bar-shaped stacking marks in the interior or the foot (B5, B7, B8) are generally dated to the 10th century and attributed to the Five Dynasties and Northern Song periods; as are examples with fine-lined, incised decoration (B8, CR1). The Percival David Collection in the British Museum contains a base sherd of identical type to B5 which has a date inscription of AD 978, demonstrating the persistence of this form into the late 10th century (PDF.292). In the same collection there are examples of cylindrical lidded boxes of the same type as CR1, attributed to the 10th century, one of which has fine-lined incised decoration similar to that observed on a number of YUE.4 types (PDF.267).

Origin: Shanglinhu, Zhejiang Province, South China. The most famous centre for Yue ware production was Shanglinhu in Zhejiang Province. However, 'Yue ware' was widely copied within southern China and some pieces may be regional products from subsidiary kilns, particularly the very roughly made vessels with internal teardrop shaped spur marks (B3), which may have been manufactured elsewhere within southern China.

Class Code: YAOZ

Class Name: Yaozhou Ware

Types: None defined

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 157

Defining Characteristics: Thin-walled bowls, with intricate, deep, carved, floral decoration filling the whole of the interior. The fabric is a hard, compact, light grey, porcelainous-stoneware body, covered on the interior, and exterior, with lighter slip and subdued, greenish-grey coloured glaze that puddles against the cleanly defined edges of carved and incised decoration. The glaze has a distinctive, cloudy quality caused by fine bubbles within the matrix. It has no crazing.

COLOUR	
Colour	Grey/L. brownish-grey
Core	10YR 6/1
Margin	10YR 6/2
Surface	Same as margin

Integrity: The class is represented by a single sherd within the assemblage from Siraf in the British Museum. A larger sample would be required to determine the extent of potential variability within the class.

Vessel Forms: Thin-walled bowls, or dishes with curved sides, and most likely a shallow profile.

Surface Treatment: Interior surfaces are covered by intricate, carved and incised decoration consisting of interlocking floral motifs, covered by a greenish-grey coloured glaze that puddles within the recessed areas of the decoration.

Fabric: Hard, fine, compact, porcelainous-stoneware fabric, with no visible inclusions. Fired to a light grey and turning cream coloured in the margins, where the surfaces appear to be covered by a lighter self-slip.

Inclusions: None.

Specifications: Average density, with a fine, compact structure, a smooth, soapy feel and a sub-conchoidal fracture.

Parallels and Dating: 11th century. Production of carved green-glazed wares at the Yaozhou kilns is associated with the Northern Song Dynasty period.

Origin: Yaozhou, Shaanxi Province, North China.

Class Code: LQC

Class Name: Longquan Celadon

Types: LQC-OR1-17, B1-5, CR1, L1

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 158

Defining Characteristics: Fine, hard, compact, pure porcelainous-stoneware body, with thick, soft, opaque green slip-glaze covering the whole of the interior and exterior, apart from an unglazed zone on the foot, or the base interior. The glaze colour and quality vary quite extensively, and may range from light turquoise-green to dark olive-green or brown, and from soft, glossy and non-crazed to thick, opaque and heavily crazed. Most sherds belong to small- or medium-sized open bowls, with squared foot rings and some form of carved decoration.

COLOUR	
Colour	Light greenish-grey
Core	N 8/1
Margin	Same as core
Surface	Same as core

Integrity: Fairly extensive variation in glaze colour and quality, but generally the class is consistent and distinctive.

Vessel Forms: Small or medium-sized open bowls, with straight, gently everted, or sharply angled, flange rims. Also, larger dishes with heavy, straight or beaked, flange rims. Bases are mostly squared foot rings with several variations.

Surface Treatment: Interior and exterior surfaces are covered by a thick, glossy, greenish-grey, or darker yellowish-green, coloured slip-glaze. The thick, opaque quality and the perfect fit of the Longquan celadon glaze is due to a combination of its correct maturation during firing (Leach, 1940: 127), the suspension effect of low-levels of ferrous oxide (1.5–3%) introduced into the glaze within a clay-slip (Cardew, 1973, 139), and the fact that the glaze was applied raw (without a pre-biscuit firing) as a slip-glaze (Wood, 1978: 18-20). Apart from the glaze, most vessels are decorated with carved, or in some cases stamped or moulded, decoration. Common carved elements include vertical flutings on the exterior or interior, interlocking ‘lotus petal’ designs on the exterior, or more complex elements.

Fabric: Very fine, fully vitrified, porcelainous-stoneware with almost no visible inclusions, but some small voids, and occasional small impurities (<0.5mm). The fabric is fired to a pure white or more often a reduced light grey. Where the body is exposed on the vessel surface it appears bright red.

INCLUSIONS	
	1
Colour	Voids
Size	<0.5mm
Shape	Rounded
Freq.	≤3%
Sorting	Good
ID	Air pockets

Specifications: High density, with a fine compact structure, a smooth feel and a clean, sub-conchoidal fracture.

Parallels and Dating: Late 13th–15th century. Specific types within the Longquan Celadon class can be dated more closely.

Origin: Longquan, Zhejiang Province, South China. The area where LQC was produced covers a large area and includes many hundreds of individual kilns. Attributing the material to individual production sites remains problematic. Imitation LQC was also manufactured in other areas such as Guangdong (see GDC.1) and Fujian Provinces, South China, and can be difficult to differentiate.

Class Code: GDC.1

Class Name: Guangdong Celadon - Group 1

Types: None defined

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 159

Defining Characteristics: Very similar to LQC but the body is buff coloured and the glaze is a dark olive-green or brown. The interior base of the vessel is often turned flat with a slight step between the base and the wall. Most vessels have an unglazed stacking ring on the interior.

Colour: Buff-grey.

Integrity: Fairly consistent group, though it is not clear whether the fabric and glaze colour simply relate to firing conditions and quality of production, or genuinely reflect an alternative provenance.

Surface Treatment: Covered with dark olive-green or brown coloured glaze and sometimes carved with vertical fluting, lotus petals or other elements.

Vessel Forms: Small and medium-sized open bowls, mostly with simple rims and squared foot rings.

Parallels and Dating: Late 13th–15th century. The class is equivalent to GDC.3 in the Williamson Collection (Priestman, 2005a: 299-300, pl. 200). The class is stylistically closely related to LQC and it is therefore likely to share the same dating (see above).

Origin: Guangdong Province, South China?

Class Code: GDC.2

Class Name: Guangdong Celadon - Group 2

Types: None defined

Clay: Porcelain **Production**: Wheel-made **Illustration**: Plate 160

Defining Characteristics: White porcelain body with light yellowish green glaze. The glaze has a soft, even gloss and a glassy, transparent quality. The only known associated vessel type is a thin-walled, small lotus bowl with simple incised petals on the exterior.

Colour: White.

Integrity: The class is represented by a single sherd in the Williamson Collection. A larger sample would be required to determine the extent of any potential variability within the class.

Surface Treatment: Covered with glassy, light yellowish-green coloured glaze with a simple incised lotus petal design on the exterior.

Vessel Forms: Small, thin-walled bowls with simple rims.

Fabric: Fine porcelainous-stoneware fired to a light yellowish-grey.

Specifications: High density, with a smooth feel and a sub-conchoidal fracture.

Parallels and Dating: 13th–14th century.

Origin: Likely to have been produced either in the Fujian or Guangdong Province, South China (Krahl, pers. comm. 2003).

Class Code: JDC

Class Name: Jingdezhen Celadon

Types: None defined

Clay: Porcelain **Production**: Wheel-made **Illustration**: Plate 161

Defining Characteristics: Pure white porcelain body, with a clear white glaze on the exterior and a fine green celadon glaze on the interior. The form is a dish with medium thick walls and broad, carved decoration on the interior. The glaze tends to puddle in the carved incisions, emphasising the decoration.

Colour: White.

Integrity: The class is represented by a single sherd in the Williamson Collection. A larger sample would be required to determine the extent of any potential variability within the class.

Surface Treatment: Exterior covered with a clear white glaze. Interior covered with a thick, glassy, bluish-green celadon with some coarse crazing. The interior also has decoration carved into the body, which shows darker where the glaze is thicker.

Vessel Forms: Shallow bowl or dish.

Fabric: Very fine, fully vitrified, porcelainous-stoneware, with almost no visible inclusions. The fabric is fired to a pure white.

Specifications: High density, with a smooth feel and a sub-conchoidal fracture.

Parallels and Dating: 15th–16th century.

Origin: Guangdong Province? South China.

Class Code: STONE-GRY

Class Name: Grey-Glazed Stoneware

Types: GGS-OR1-3, B1-2

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 162

Defining Characteristics: Fine-grained grey stoneware body that is usually re-oxidised orange around the foot. The glaze is transparent and is either plain or finely crazed with occasional black flecks showing through from the body. The glaze covers the interior and exterior, stopping 1–2.5cm before the foot. Most bowls have an unglazed stacking ring in the interior, with traces of white alumina used to ensure separation of the vessels from one another after firing. The class was obviously mass-produced as it is very standardised and rather crudely made. The bases are thick and the foot rings are roughly turned with tooling marks left un-smoothed.

Colour: Light greenish-grey.

Integrity: Coherent and readily recognisable.

Vessel Forms: Medium-sized open bowls, with simple, straight, rounded rims, curving walls and thick, squared foot rings with chamfered edges, or wide, low foot rings.

Surface Treatment: Interior and exterior surfaces are covered by a clear, transparent grey glaze, with a slightly greenish tinge. The glaze can be soft and matt with no crazing, or shiny with fine crazing.

Fabric: Fine, hard, stoneware with occasional small, black flecks, which appear infrequently in the broken section but are more numerous under the glaze. The fabric is generally fired to a reduced grey but is sometimes re-oxidised on exposed surfaces, such as the foot ring, or the interior unglazed stacking ring. Some pieces are lighter coloured through the core and appear closer to a porcelainous-stoneware.

INCLUSIONS	
	1
Colour	Black
Size	<0.5–1mm
Shape	Rounded
Freq.	Occasional
Sorting	Good
ID	Black grit

Specifications: High density, with a compact structure, a rough feel and a sub-conchoidal fracture.

Parallels and Dating: 13th–mid-14th century. The same class has been identified at Luluyyah fort in Sharjah, which has been dated between the 13th and early 14th century based on the LQC finds (Sasaki and Sasaki, 2001: pl. 7: centre row left and 2nd column centre row). It also occurs at Old Hormuz (Site K103) in the Minab area, which has produced an assemblage that is predominantly, although not exclusively, dated to the late 13th–14th century (Morgan, 1991: 70-71).

Origin: Most probably manufactured in South China, probably in Guangdong Province, though there is also a slight possibility that it was produced in Vietnam (Guy, pers. comm. 2003).

Class Code: STONE-PLG

Class Name: Patchy Light Green-Glazed Stoneware

Types: None defined

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 163

Defining Characteristics: Fine, slightly powdery, compact, buff coloured stoneware with a distinct glassy quality. Vessels are all medium-sized, fairly shallow open bowls, with thick, raised, concave bases and simple, rounded lips. Interior and upper exterior surfaces are covered by a thin, light yellowish-green glaze that has a strong tendency to puddle and slip. Within the interior, large squares are freed from the glaze for stacking.

Colour: Pale yellowish-white.

Integrity: Coherent and distinctive class.

Vessel Forms: Medium-sized, shallow, open bowls, or dishes, with heavy, raised, and turned, concave feet, curved walls, and gently everted, or up-turned, rims, with rounded lips.

Surface Treatment: The interior surface and rim exterior is covered in a thin, patchy, light yellowish-green glaze with large squares cut away from the interior for stacking. Vessels often have a single shallow incised band running around the interior just below the lip.

Fabric: Fine, compact, buff coloured stoneware, with a slightly crumbly composition, and no visible inclusions. The matrix appears to be partially vitrified and to have a glassy quality.

Specifications: High density, with a compact granular structure, a gritty feel and an irregular fracture.

Inclusions: None.

Parallels and Dating: Mid-8th–early 9th century. A quantity of STONE-PLG occurs within the foundation platform of the Great Mosque at Siraf, which numismatic evidence indicates was completed not long after AD 803–04. Thereafter STONE-PLG becomes scare and appears to drop out of circulation (Whitehouse, 1973: 247-48, 251, pl. 18.2: a-b).

Origin: A production site for what appears to be the same distinctive class has been discovered at Tuan Chau on the Red River delta in northern Vietnam (Wisniewski, 2008; 2012). Examples from Siraf represent the furthest known western distribution for this class.

Class Code: STONE-BUR

Class Name: Burmese Green-Glazed Stoneware

Types: EAS-OR4, B3

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 164

Defining Characteristics: Hard, gritty, brownish-grey coloured stoneware body, with thick, coarsely crazed, dark bottle-green coloured glaze covering the interior and exterior and stopping inside the foot. The glaze has a tendency to puddle, leaving thickly pooled areas and areas where the glaze is nearly absent. Vessels are robustly built and large.

COLOUR	
Colour	Dark greyish-brown
Core	10YR 4/2
Margin	Same as core
Surface	Same as core

Integrity: Distinctive and readily recognisable.

Vessel Forms: Heavy, flange-rimmed dishes, with shallow recessed foot-wells, and simple-rimmed bowls, with high, tapered foot rings.

Surface Treatment: Interior and exterior surfaces are covered by a thick, coarsely crazed, dull greenish-grey coloured glaze, which tends to slip and puddle. Surfaces are also decorated with carved motifs, mostly on the interior. Exteriors can also be fluted. Interior decoration includes horizontal bands, vertical grooves, paired grooves or fluting, as well as free-flowing scrolls and arcs. The decoration can be placed either on or below the flange of the rim.

Fabric: Coarse, gritty, but densely fired stoneware, containing frequent small, white grits and infrequent, partially voided, black grits. The fabric is fired to a dark reddish-grey. Although the fabric is fully vitrified, the matrix does not appear fully fused.

INCLUSIONS		
	1	2
Colour	White/grey	Black
Size	≤0.5mm	≤0.5mm
Shape	Rounded	Rounded
Freq.	5%	Occasional
Sorting	Good	Good
ID	Rolled quartz	Partially burnt out grit

Specifications: High density, with a compact structure, a rough feel and an irregular fracture.

Parallels and Dating: 15th–17th century. This is the same as STO.BUR in the Williamson Collection (Priestman, 2005a: 301-02, pl. 178). The pottery compares closely with material found in Levels 1-3 from the Japanese excavations at al-Mataf (Sasaki and Sasaki, 2002). Petrographic analysis of this material, looking at particle size sorting of quartz grains, rather than the more typical method of analysing the mineralogical suite, indicates that STONE-BUR matches samples collected from the recently identified major production centre at Twante on the Myanmar mainland (Sasaki and Sasaki, 2002).

Origin: Twante, Southern Burma (Mayanmar).

Class Code: STONE-THAI

Class Name: Thai Green-Glazed Stoneware

Types: GGS-B4-5

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 165

Defining Characteristics: Various bowl and dish forms, with a compact, buff coloured, stoneware fabric, with fine, black, grit inclusions, and a slightly coarse, grainy structure. The glaze is glossy, coarsely crazed and has a tendency to puddle. It ranges in colour from dark green to very light blue-green, but always tends to be bright with a blue-green tinge. Most forms have glaze, covering both the interior and exterior, stopping at the base of the foot. One distinctive characteristic is a type of foot ring, represented on some pieces with a depression in the centre where the vessels have been stacked on rings, leaving a glassy black residue where they have been separated.

Colour: Buff or grey.

Integrity: Fabric and glaze are generally consistent, but the class is somewhat generic and a variety of products from different sources may be included within the category.

Surface Treatment: Either plain or with carved decoration. Some vessels have fluted exteriors. Interior decoration includes both fluting and more intricate, free-flowing designs.

Vessel Forms: Flanged-, or simple-rimmed bowls, and dishes, with low squared foot rings, or a tall, pointed, foot rings.

Fabric: Hard, grainy, buff, or grey, coloured stoneware, containing occasional, fine, black grits and frequent very small voids. The fabric has a fine, compact structure, although the matrix does not appear to be fully fused.

INCLUSIONS		
	1	2
Colour	Black	Voids
Size	≤0.5mm	<0.5–1mm
Shape	Sub-rounded	Sub-rounded
Freq.	≤3%	<3–5%
Sorting	Fair	Poor
ID	Black grits	Air pockets

Specifications: High density, with a compact structure, a gritty feel and a sub-conchoidal fracture.

Parallels and Dating: 15th–early 17th century. Examples with closely comparable greenish-blue tinted glaze of Thai origin can be found amongst the late 15th century cargo of a Chinese Junk wrecked off the Lena Shoal in the Philippines. In particular, there are similar plain, or incised, flanged rim dishes, and plain-rimmed bowls with horizontal incised bands (Goddio, *et al*., 2002: pls. 288, 305-09).

Origin: Central Thailand.

Porcelain

Class Code: XING

Class Name: Xing Ware

Types: POR-OR1

Clay: Porcelain **Production**: Wheel-made **Illustration**: Plate 166

Defining Characteristics: Pure white porcelain covered by a well fitted, clear white, or slightly greyish-green, tinted glaze, with a soft, even sheen. The glaze is always non-crazed and covers the interior and exterior, stopping before the base of the foot. The most characteristic vessel form is a small bowl, with a narrow, beaded rim (POR-OR1) and a cleanly turned flat bi-disc foot (POR-B5).

Colour: White.

Integrity: Coherent well defined class, though it can be difficult to distinguish from better quality white wares manufactured in South China.

Vessel Forms: Mostly small open bowls, with narrow, beaded rims and flat, cleanly turned, bi-disc bases. Other bowls have everted, gently closed or lobed rims. Another type is a delicately thrown and turned lidded box with a low squared foot ring.

Surface Treatment: Interior and exterior surfaces are covered by a clear, smooth, milky-white, or greyish-green, tinted glaze, with no crazing. The glaze covers all surfaces, apart from the base of the foot. Otherwise vessels are left plain.

Fabric: Hard, compact, fully vitrified, pure white porcelain, with no visible inclusions. The matrix appears glassy, and has a clean, sub-conchoidal fracture.

Specifications: High density, with a compact, fully vitrified structure, a smooth feel and a sub-conchoidal fracture.

Inclusions: None.

Parallels and Dating: 9th–10th century. The highest quality white porcelain products of the period are associated with the Xing kilns in North China. One of the problems with the identification of Xing ware is that copies of Xing-style products were produced in many other areas of the country. Also, quality alone does not necessarily provide a reliable differential, as poor-quality products may also have been produced from some of the lesser kilns within the Xing area. XING is differentiated here on the conventional grounds of being purer white and more finely potted than other white porcelain products, but these criteria are not necessarily reliable.

Origin: Xing, Hebei Province, North China.

Class Code: WW

Class Name: White Ware

Types: POR-OR1-2, OR4-6, OR8, CR1, B1-3, B5

Clay: Porcelain **Production**: Wheel-made **Illustration**: Plate 167

Defining Characteristics: Pure white, or light grey, porcelain covered by a clear green, yellow or blue tinted, off-white glaze, generally with a soft, even sheen. Most vessels are small open bowls, with simple, or rolled and beaded, rims, and cleanly turned bases. The glaze is generally non-crazed and covers the interior and exterior, including the rim, stopping just before the base.

Colour: White.

Integrity: All white porcelain but wide variation represented in terms of fabric quality, glaze colour and vessel forms. Clearly, this generic class includes the products of many different centres of production and also a fairly broad chronological range. Unfortunately, the accurate sub-division of the white porcelain assemblage remains extremely problematic, as the normal visual markers of colour, fabric quality, etc, appear to be heavily influenced by firing conditions. The individual types represented within the assemblage provide one aspect that can be used to obtain better chronological control, but they are of lesser value in determining provenance.

Vessel Forms: Mostly small open bowls, with rims that are simple and straight, slightly everted, everted and lobed, or gently closed. Bases are cleanly turned and include various forms of foot ring.

Surface Treatment: Interior and exterior surfaces are covered by a clear white, or more often green, yellow, blue, or sometimes grey, tinted off-white glaze. The glaze generally has no crazing, a soft, even sheen and stops just before the foot. Apart from the glaze, most vessels are plain, but some types have intricate, carved, and combed, decoration cut into the body of the interior.

Fabric: Hard, compact, fully vitrified, pure white porcelain, generally with no visible inclusions. The matrix appears glassy, and has a clean, sub-conchoidal fracture. Occasionally the fabric is fired to light grey.

Inclusions: Generally, none.

Specifications: High density, with a compact structure, a smooth feel and a sub-conchoidal fracture.

Parallels and Dating: 9th–12th century.

Origin: China.

Class Code: CWW

Class Name: Carved White Ware

Types: POR-OR2, B1, B3

Clay: Porcelain **Production**: Wheel-made **Illustration**: Plate 168

Defining Characteristics: Pure white porcelain covered by a clear white, light blue, or yellow tinted, glaze, generally with a soft, even sheen. Vessels are all small open bowls, with simple, slightly everted, pointed rims and thick, cleanly turned foot rings. The glaze is finely crazed and covers the interior and exterior, including the rim, stopping immediately before, or at the bottom of, the foot. The most distinctive feature of this class, that distinguishes this category from other white porcelain, is the exterior, which is carved with sharp edged flutings representing a crude lotus petal design.

Colour: White.

Integrity: Generally distinctive and consistent but some variation in glaze colour and quality.

Vessel Forms: Small open bowls, with curved sides, and thick, cleanly turned bases, with low, squared and chamfered, or high, pointed foot rings.

Surface Treatment: Surfaces are covered by a clear, white, or more often, off-white light blue or yellow tinted glaze. The glaze can be finely crazed or non-crazed, and has a soft, even sheen where it is well preserved. The glaze covers both the interior and exterior, including the rim, and stops immediately before, or at the base of, the foot. Foot ring interiors are unglazed and can turn light pink on the surface. Vessel exteriors are carved with a series of sharply defined, vertical flutings, forming crude 'lotus petal' designs, which extend from the top of the foot rings to just before the lips.

Fabric: Hard, compact, fully vitrified, pure white porcelain, with no visible inclusions. The matrix appears glassy and has a clean, sub-conchoidal fracture.

Inclusions: None.

Specifications: High density, with a compact structure, a smooth feel and a sub-conchoidal fracture.

Parallels and Dating: 11th–13th century. This is the same as WWG.2 in the Williamson Collection (Priestman, 2005a: 290-91, pl. 215) and CWW from Kush (Kennet, 2004: 48). The class is commonly

referred to as 'carved white ware' and was manufactured possibly in Guangdong during the 11th–13th centuries. A similar Northern Song example, with a swirling lotus petal design, was recovered from the excavation of Zhuyuadun kiln site in Choozhou, Guangdong Province (Anon. 1985: pl. 25).

Origin: Guangdong Province, South China.

Class Code: QING

Class Name: Qingbai Ware

Types: POR-OR2-3, OR6, B1-3

Clay: Porcelain **Production**: Wheel-made **Illustration**: Plate 169

Defining Characteristics: Very fine, pure white, porcelain body, typically with light, eggshell-blue coloured glaze. The quality and colour of glaze varies quite extensively and includes examples with a fine, even gloss, and others that are coarse and heavily crazed. Colours range from gently tinted white to strong 'duck-egg' blue. Forms are mostly small- or medium-sized bowls, with neatly turned foot rings, often accompanied by delicate, carved and combed decoration on the interiors.

Colour: White

Integrity: Generally distinctive and consistent but some variation in glaze colour and quality.

Vessel Forms: Mostly small- to medium-sized bowls, with curved sides, thick bases and cleanly turned foot rings, either of a type that is high and pointed (POR-B2), low with an angled exterior and a short sharply cut interior (POR-B3), or low and rounded with a chamfer on both sides (POR-B1). Other vessel types include tall, narrow-necked jars with flaring mouths, lidded boxes, and conical, spouted ewers.

Surface Treatment: Interior and exterior surfaces are covered by shiny, light blue tinted, off-white glaze that can be even or finely crazed. On bowls, the glaze can stop before the foot, but more often continues over the foot with an unglazed stacking zone filling the whole, or part of, the interior foot well. Apart from the glaze, the majority of pieces have intricate, abstract, or floral, motifs carved and combed into the body. Where the body has been carved, the glaze puddles and darkens within the slight depressions left, highlighting the decoration. Type POR-B1 is consistently not decorated, apart from an incised band at the break of angle in the base of the interior.

Fabric: Hard, compact, fully vitrified, pure white porcelain with no visible inclusions. The matrix appears glassy and has a clean, sub-conchoidal fracture.

Specifications: High density, with a compact, fully vitrified structure, a smooth feel and a sub-conchoidal fracture.

Inclusions: None.

Parallels and Dating: 11th–13th century. This is equivalent to QING.1 in the Williamson Collection (Priestman, 2005a: 293). Extensive excavations have been undertaken between 1988 and 1999 at Hutian kiln site in Jingdezhen, the main site where Qingbai was manufactured. Amongst the wide range of ceramics recovered, there are good parallels for most of the types represented within the

assemblage from sites in the western Indian Ocean (Anon. 2007). Similar Qingbai wares are also likely to have been manufactured within the wider region of southern China.

Origin: Hutian, Jiangxi Province, South China.

Class Code: DEHUA

Class Name: Dehua White Ware

Types: POR-OR7-8, B6

Clay: Porcelain **Production**: Moulded **Illustration**: Plate 170

Defining Characteristics: Small, standardised bowl forms, with sugary white porcelain bodies and clear white, or grey, glaze covering the interior and exterior, that stops before the base and the rim. The exteriors can be plain or decorated in moulded relief. Two aspects of the form are particularly diagnostic: the rim, which is unglazed with a squared lip, and the base, which is moulded with a shallow, rounded centre and a, low, rounded foot ring.

Colour: White

Integrity: Coherent and readily recognisable.

Vessel Forms: Small, near straight-sided, open bowls, with squared rims and flat, slightly concave bases, with faintly defined, rounded foot rings. Also, some slightly larger bowls, with flared open sides and the same base and rim features.

Surface Treatment: Interior and exterior surfaces are covered by clear, white, or greyish-green, tinted glaze which stops well above the base on the exterior and slightly before the rim on the interior. Exterior surfaces are either plain or decorated with simple moulded designs often including a straight horizontal band below the rim bisected by straight vertical lines, a zigzag line reminiscent of petals, or other more complex scrolled motifs.

Fabric: Dense, fine-grained, white porcelain with no visible inclusions. The fabric is fully vitrified with a distinctive, sugary texture.

Specifications: High density, with a compact, fully vitrified structure, a smooth feel and a sub-conchoidal fracture.
Inclusions: None visible.

Parallels and Dating: 12th–13th century. This is the same as DEH.1 in the Williamson Collection and DHM/DHP from Kush (Priestman, 2005a: 294, pl. 219; Kennet, 2004: 48-49). The class occurs in Phase E-10 at Kush, providing a late 13th century date (Kennet, 2004: table 3). The class is also well represented in the assemblage from K103 (Old Hormuz) on the Minab Plain, where other ceramics are primarily dated within the range of the 13th and 14th centuries (Morgan, 1991: 70-71). In China, the class started to be manufactured in the Song period, with output continuing into the Yuan dynasty. A good parallel for the straight-sided vessel with moulded decoration comes from the Qudougong kiln site at Dehua (Bai Zhang, 2008b: pl. 160).

Origin: Dehua, Fujian Province, South China.

Class Code: CBW.1

Class Name: Chinese Blue and White - Group 1

Types: POR-OR2-3, B2, B4

Clay: Porcelain **Production**: Wheel-made **Illustration**: Plate 171

Defining Characteristics: Mostly small- to medium-sized, open bowls and dishes, made from a pure white porcelain, with a glassy matrix and no visible inclusions. Interior and exterior surfaces are covered by clear, glossy, white glaze, that is often tinted slightly blue or green, and which stops at the foot of the base. Interior and exterior surfaces are decorated with a mixture of complex patterns and motifs painted in strong, bright cobalt-blue.

Colour: White

Integrity: Distinctive general class but wide variation in terms of decorative content, quality of glaze and blue pigment.

Vessel Forms: Small or medium-sized, open bowls, with simple, gently everted rims and different types of foot rings, including one that is high and straight-sided and another that is low, with a sloping outer face and a short, vertical inner face.

Surface Treatment: Interior and exterior surfaces are covered by clear, white, light blue, or green tinted glaze, which stops at the base of the foot. Both interior and exterior surfaces are decorated with bright blue cobalt-painted decoration, which varies somewhat in the intensity of colour and stability within the glaze. Decoration consists mostly of floral elements and patterned borders.

Fabric: Hard, compact, fully vitrified, pure white porcelain, with no visible inclusions. The matrix appears glassy.

Specifications: High density, with a compact structure, a smooth feel and a sub-conchoidal fracture.

Inclusions: Generally, none.

Parallels and Dating: 14th–early 17th century. The class can be sub-divided and accurately dated on the basis of its decorative content and other features, but detailed identification of the material is not always straightforward. Here, a more generic chronological sub-division is imposed between earlier dated CBW, which is often pure white with bright cobalt-blue underglaze-painted decoration and different decorative motifs, and the later dated tradition, which often has an off-white glaze, simple dull blue or black decoration, thicker, more crudely finished vessel forms and unglazed stacking rings on the interior (CBW.2). There are also a range of specific decorative schemes that are frequently associated with the later material.

Origin: Jingdezhen, Jiangxi Province, South China.

Class Code: CBW.2

Class Name: Chinese Blue and White - Group 2

Types: POR-OR2-3, B2, B4

Clay: Porcelain **Production**: Wheel-made **Illustration**: Plate 172

Defining Characteristics: Mostly small- to medium-sized, open, bowls and dishes, made from a white, or light grey, porcelain body, with a glassy matrix and no visible inclusions. Interior and exterior surfaces are covered by a clear, glossy blue, or greyish-green, tinted off-white glaze, which stops at the foot of the base. Some vessels have an unglazed stacking ring inside. Interior and exterior surfaces are decorated with light, slightly streaky, blue, or grey, cobalt painted elements made up of sparse, flowing, floral, or abstract patterns.

Colour: White or light grey.

Integrity: Reasonably consistent and distinctive. Further sub-divisions within the group may be possible on the basis of decorative content and other characteristics.

Vessel Forms: Mostly small- or medium-sized, open, bowls and dishes, with relatively thick walls, straight, slightly squared rims, and high pointed, or low squared, foot rings.

Surface Treatment: Interior and exterior surfaces are covered by blue, or greyish-green, tinted off-white glaze which stops at the base of the foot. Some vessels also have an unglazed ring within the interior for stacking during firing. Both interior and exterior surfaces are decorated with light, faded blue, or dark grey, designs, painted in cobalt with a subtle, streaky appearance. Decoration consists mostly of sparse floral, or abstract, swirls, framed by straight bands.

Fabric: Hard, compact, fully vitrified, pure white, or grey, porcelain, with no visible inclusions. The matrix appears glassy.

Specifications: High density, with a compact structure, a smooth feel and a sub-conchoidal fracture.

Inclusions: Generally, none.

Parallels and Dating: 17th–19th century. See discussion of the distinction between CBW.1 and CBW.2 above.

Origin: Jingdezhen, Jiangxi Province, South China.

Class Code: ENAM

Class Name: Enamelled Porcelain

Types: None defined

Clay: Porcelain **Production**: Wheel-made **Illustration**: Plate 173

Defining Characteristics: Fine, pure white porcelain body covered by clear, white glaze, which is over-painted with polychrome enamel decoration in red, yellow and green.

Colour: White.

Integrity: Coherent and distinctive decorative category.

Surface Treatment: The motifs are mostly floral. Some are very finely painted with detailed decoration including lattice-filled borders. Others are painted in a cruder style.

Vessel Forms: Small to medium-sized bowls and cups.

Fabric: Very fine, fully vitrified, glassy, white porcelain.

Specifications: High density, with a smooth feel and a sub-conchoidal fracture.

Parallels and Dating: 16th–18th century.

Origin: Guangdong Province? South China.

Class Code: VBW

Class Name: Vietnamese Blue and White

Types: None defined

Clay: Porcelain **Production**: Wheel-made **Illustration**: Plate 174

Defining Characteristics: Opaque, cream coloured glaze, with simple underglaze-painted decoration in dark grey or black.

Colour: Off-white.

Integrity: The class has similar characteristics to CBW but is distinguished by the yellowish quality of the fabric, the opaque cream colour of the glaze, and dark grey nature of the pigment used in decoration. Within the VBW, there is potentially further variation indicative of production over an extended period.

Surface Treatment: Interior and exterior surfaces are covered by an opaque, cream coloured glaze with dark, greyish-blue coloured, underglaze-painted decoration.

Vessel Forms: Small to medium-sized open cups and bowls.

Fabric: Hard, compact, light yellow tinted porcelain, with a slightly chalky quality.

Specifications: High density, with a smooth feel and a sub-conchoidal fracture.

Parallels and Dating: 14th–16th century.

Origin: Vietnam.

Opaque-Glazed Red Ware

Class Code: OPREW

Class Name: Opaque-Glazed Red Ware

Types: None defined

Clay: Stoneware **Production**: Wheel-made **Illustration**: Plate 146

Defining Characteristics: Dishes and bowls, with a hard, dark red, gritty fabric covered by a thick, opaque, creamy-white or light green coloured glaze across both the interior and exterior down to the base of the foot. The glaze is generally coarsely crazed.

COLOUR	
Colour	Red
Core	2.5YR 6-7/6
Margin	Same as core
Surface	Same as core

Integrity: Coherent and distinctive class.

Surface Treatment: Interior and exterior surfaces covered by a thick, opaque, cream, or lime-green, coloured glaze.

Vessel Forms: Various open bowls and dishes, with simple or flanged rims, and cleanly turned foot rings.

Fabric: Very hard and dense, brick-red earthenware, with an even, compact structure and some very fine, well sorted grits.

INCLUSIONS	
	1
Colour	Red or black
Size	≤0.5mm
Shape	Sub-rounded
Freq.	1–2%
Sorting	Good
ID	Grog or grit

Specifications: High density, with a compact structure, a rough feel and a fine, irregular fracture.

Parallels and Dating: 15th–17th century. The same class with opaque white, or light green, glaze and a hard, red body was recovered from above the abandonment level in Trench MA-2 at al-Mataf, which points to a post mid-17th century date (Hansman, 1985: 34, pl. V: k, n, fig. 9: j-k). From later excavations at the same site, a number of sherds were recovered from Phase III of the Mosque, indicating a somewhat earlier dating to between the late 15th to late 16th centuries (Kennet, 2004: 51, table 7).

Origin: Hansman suggests that the class may be from Southeast Asia or southern China (Hansman, 1985: 34). Fieldwork carried out in Myanmar in 2002 identified a number of sherds belonging to the class at the Twante kiln site and from the port sites along the Twante canal, suggesting that the class

may have been manufactured in Myanmar, although no actual production site has yet been located (Sasaki and Sasaki, 2002: 15).

East Asian Non-Identified

Class Code: EAST.N-ID

Class Name: Non-Identified East Asian

Clay: Stoneware/porcelain **Production**: Wheel-made **Illustration**: None

Defining Characteristics: Various stoneware and porcelain sherds, mostly with patchy green, or black, iron glazes and different types of body, including coarse, grit-tempered stoneware and finer fabric pieces.

Integrity: Completely mixed and varied.

Vessel Forms: Various bowls and jars.

Surface Treatment: Different types of glaze, including patchy, greenish-grey and black, iron glazes.

Fabric: Mixed stoneware and porcelain.

Parallels and Dating: Not known.

Origin: East Asia.

European

Class Code: RWW

Class Name: European Refined White Ware

Types: None defined

Clay: Earthenware **Production**: Moulded **Illustration**: None

Defining Characteristics: Mould-made vessels manufactured with a hard, white paste and either chrome painted, or transfer-printed, with intricate patterns, mostly in cobalt-blue, covered by a shiny transparent glaze.

Colour: White.

Integrity: Coherent and distinctive manufacturing technique but wide variation in the specific nature of products, with no attempt made here to distinguish between them.

Surface Treatment: Complex patterns closely imitating those found on Chinese Blue and White.

Vessel Forms: Mostly plates and dishes.

Fabric: Dense white paste with a chalky quality.

Specifications: Medium density, with a compact structure, a smooth feel and a clean fracture.

Parallels and Dating: 19th–20th century.

Origin: Europe.

Class Code: STONE-EU

Class Name: European Stoneware

Types: None defined

Clay: Stoneware **Production**: Wheel-made **Illustration**: None

Defining Characteristics: Cylindrical stoneware ink bottles, with either a simple, lustrous, dark brown glaze, or a bright, shiny yellow or orange, speckled salt-glaze.

Colour: Grey.

Integrity: Characteristic vessel type but wide variation in the specific nature of products with no attempt made here to distinguish between them.

Surface Treatment: None, apart from some examples that have a stamped manufacturer's mark on the shoulder or close to the base.

Vessel Forms: Tall, cylindrical vessel, with a short, narrow neck, and a flat base.

Fabric: Generally, a grey stoneware with fine, well sorted black flecks.

Specifications: High density, with a compact structure, a smooth feel and a sub-conchoidal fracture.

Parallels and Dating: 18th–20th century.

Origin: Europe.

Class Group Images

Plate 1 HARLIM

Plate 2 HARLIM (Type LISV#)

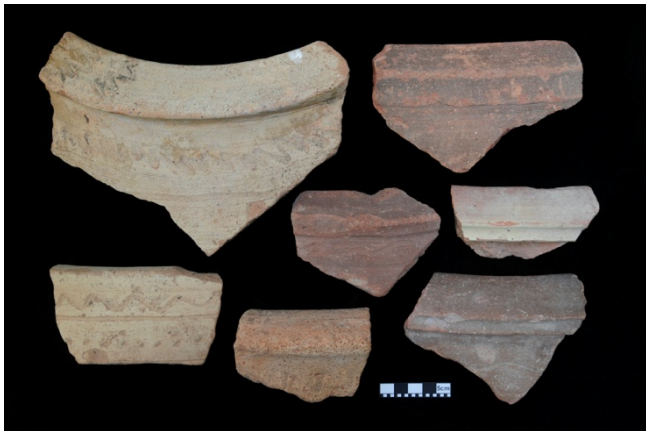


Plate 3 FINLIM (Type LISV#)

Plate 4 REBROS

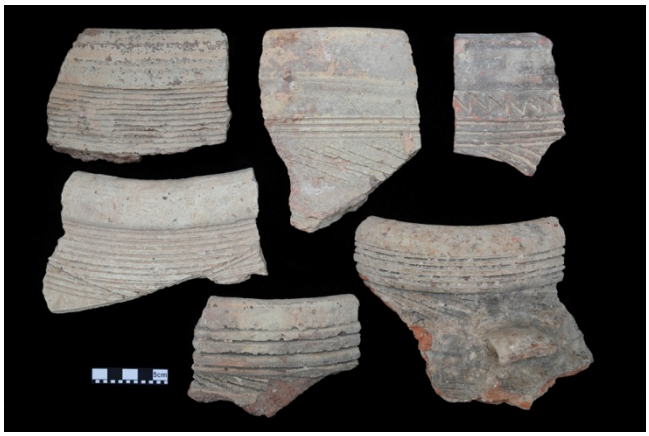


Plate 5 REBROS (Type LISV#)

Plate 6 CREAC

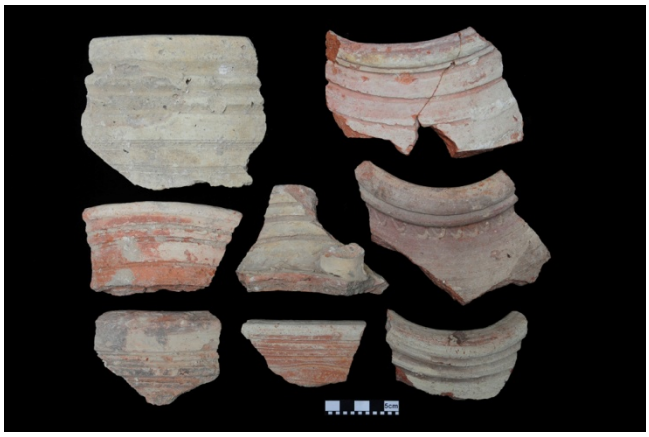


Plate 7 CREAC (Type LISV#)

Plate 8 ORGPIN

Plate 9 REGTEC

Plate 10 EGG.PI

Plate 11 WHITE.PI

Plate 12 WHITE.A

Plate 13 BUFF.I

Plate 14 BUFF.S

Plate 15 BUFF.P

Plate 16 SPORC

Plate 17 TORP-C

Plate 18 TORP-S

Plate 19 TRC

Plate 20 HONEY

Plate 21 STAMP

Plate 22 RUST

Plate 23 FIBIC

Plate 24 HARC

Plate 25 EGG.M

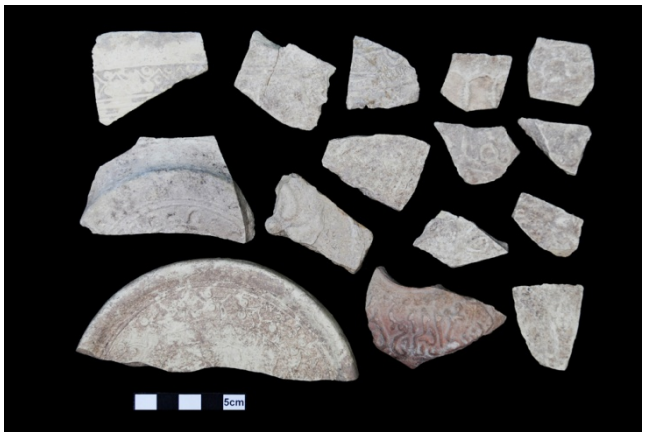


Plate 26 WHITE.M

Plate 27 MEW

Plate 28 MEW.MO

Plate 29 SLIP.R

Plate 30 SLIP.B

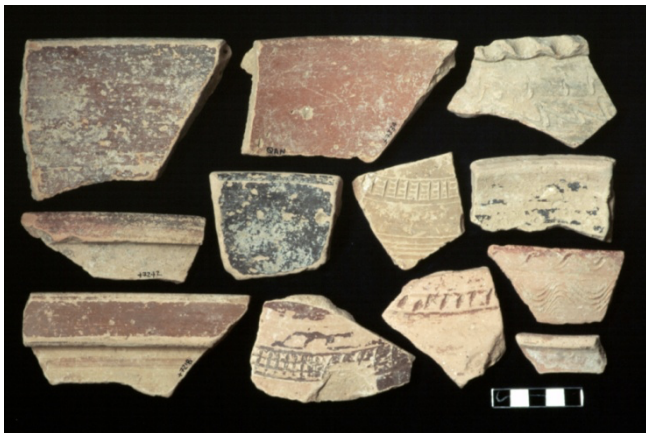


Plate 31 SLIP.TB

Plate 32 SLIP.PBR

Plate 33 FOPW.1

Plate 34 FOPW.2

Plate 35 CHAM

Plate 36 JULFAR

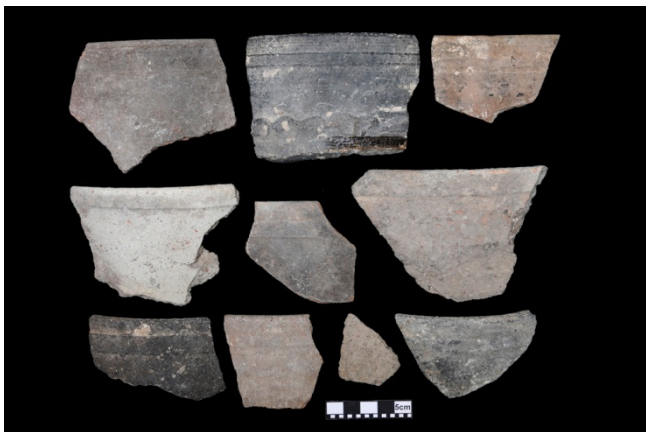


Plate 37 JULFAR (Type JUL-CR6.2)

Plate 38 JULFAR.PB

Plate 39 JULFAR.RW

Plate 40 HMPW-1

Plate 41 HMPW-2

Plate 42 BSTOP

Plate 43 HMPW-CC

Plate 44 HMPW-ORG

Plate 45 HMPW-RB

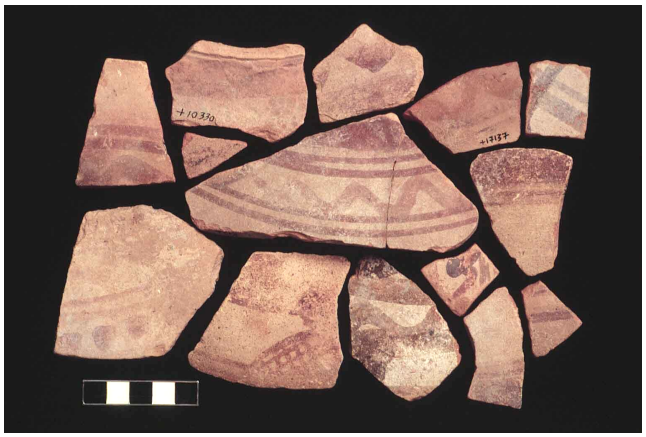


Plate 46 HMPW-SA

Plate 47 INC.M

Plate 48 HAGRIT

Plate 49 LIME

Plate 50 CHOC

Plate 51 INCIMP

Plate 52 IRPW

Plate 53 IRPW.RC

Plate 54 HARMIC

Plate 55 BRISAN

Plate 56 SBBW

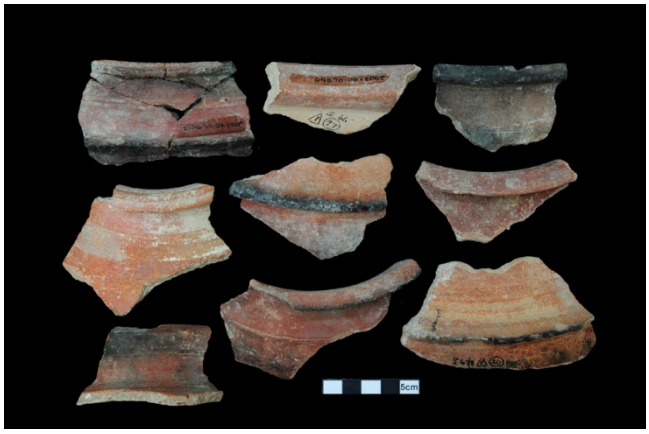


Plate 57 BUFRAB

Plate 58 LINVES

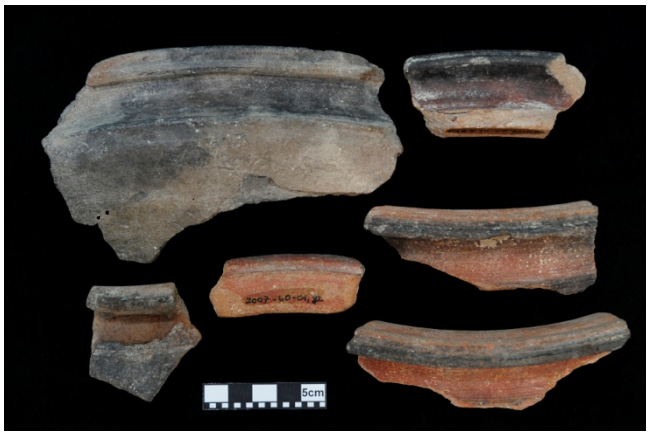


Plate 59 IRAB

Plate 60 EACOP

Plate 61 TURQ.YG

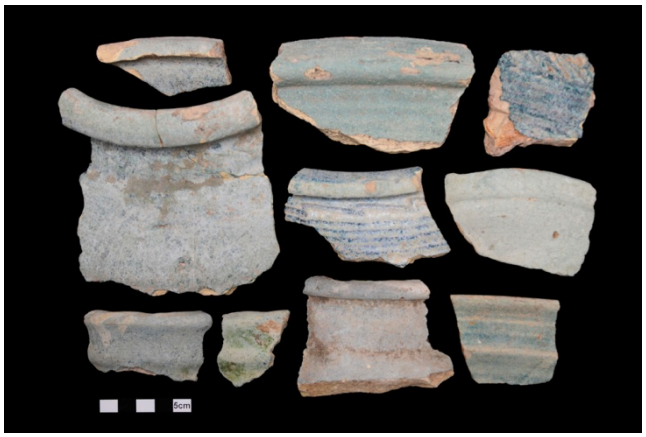


Plate 62 TURQ.T

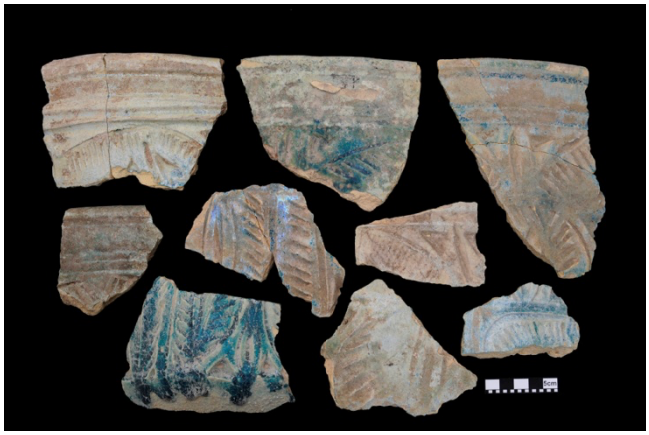


Plate 63 TURQ.T (Types TUR-CR11 and TUR-F4)

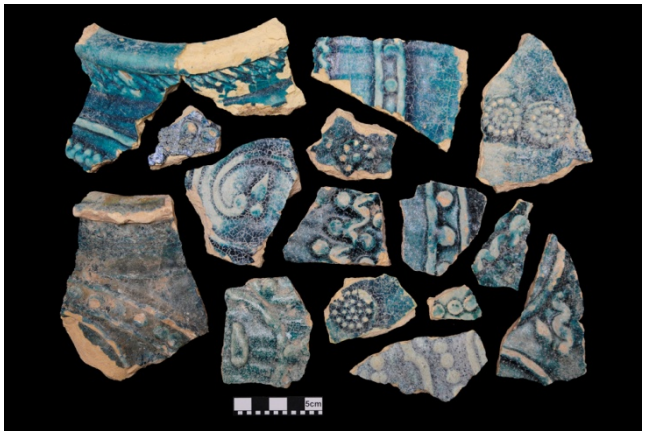


Plate 64 TURQ.T (Types TUR-CR1 and TUR-F1)

Plate 65 TURQ.T (Type TUR-F2)

Plate 66 TURQ.T (Type TUR-F3)

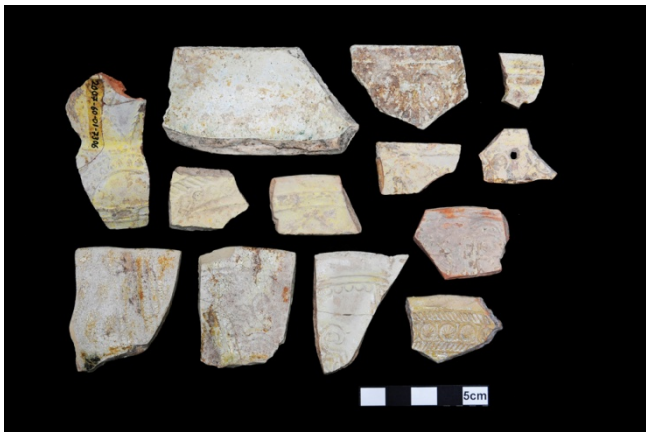


Plate 67 GLAMO.Y

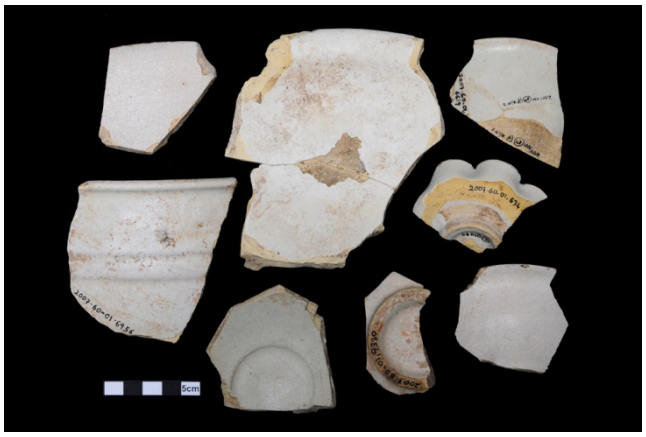


Plate 68 OPAQ.W

Plate 69 OPAQ.C

Plate 70 OPAQ.WC

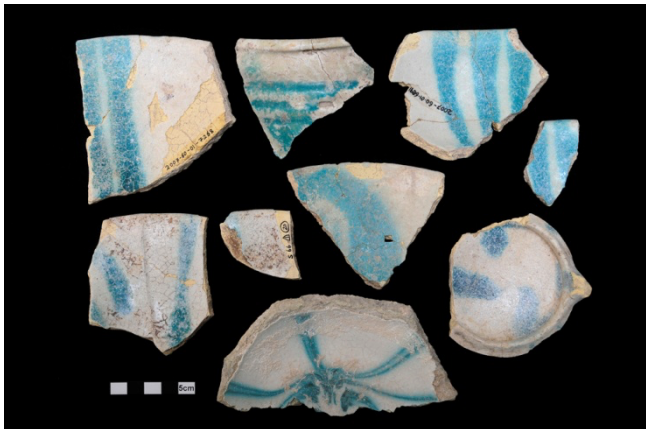


Plate 71 OPAQ.TS

Plate 72 OPAQ.TBS

Plate 73 OPAQ.LG

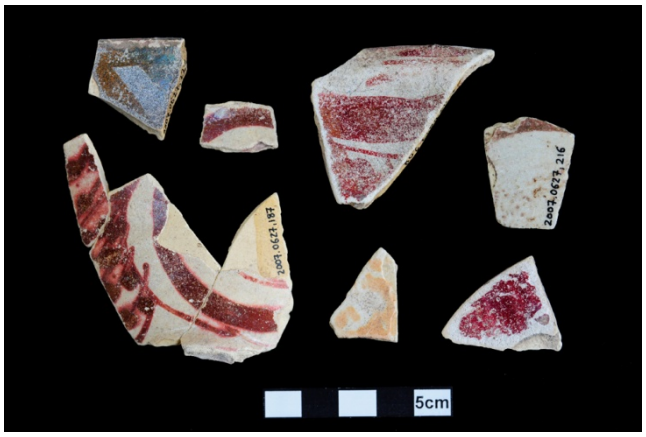


Plate 74 OPAQ.LR

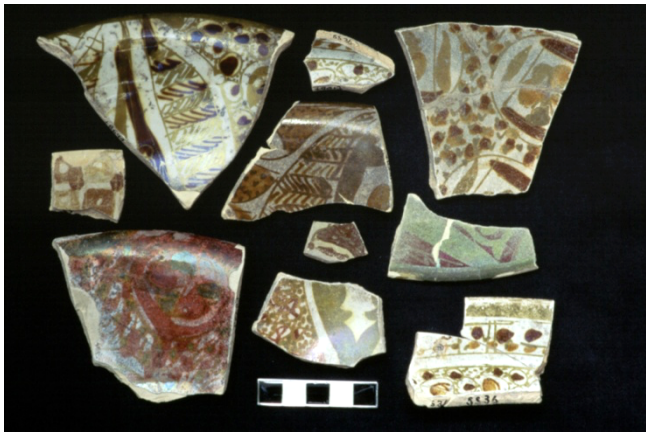


Plate 75 OPAQ.LP

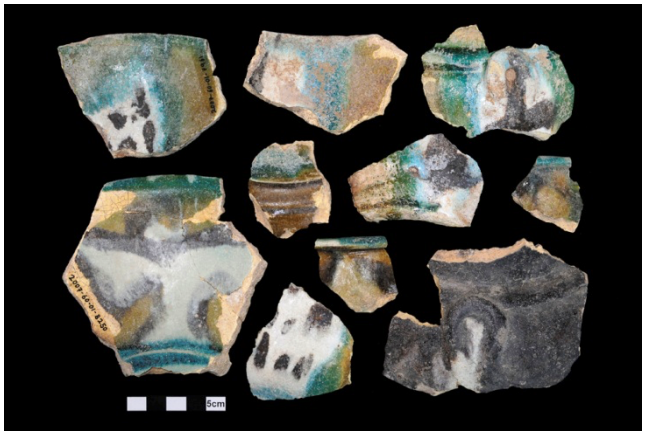


Plate 76 OPAQ.PS

Plate 77 OPAQ.T

Plate 78 OPAQ.B

Plate 79 OPAQ.BW

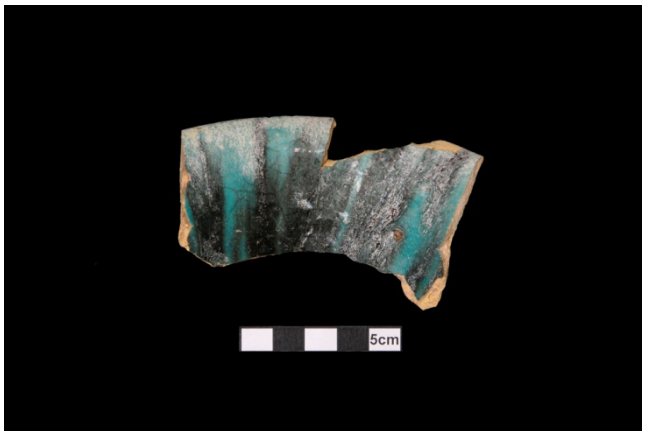


Plate 80 OPAQ.BT

Plate 81 OPAQ.CP

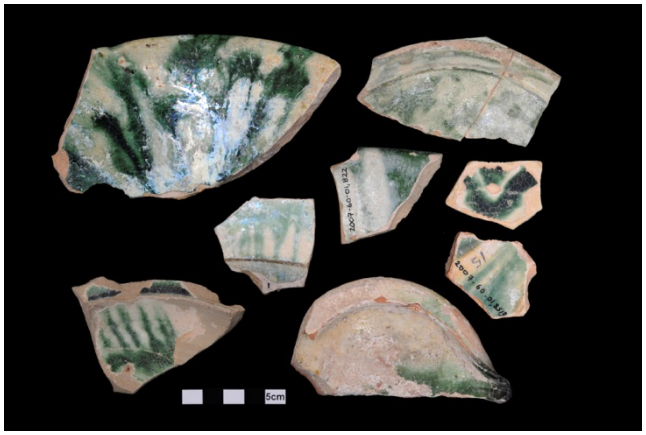


Plate 82 SPLASH.GW1

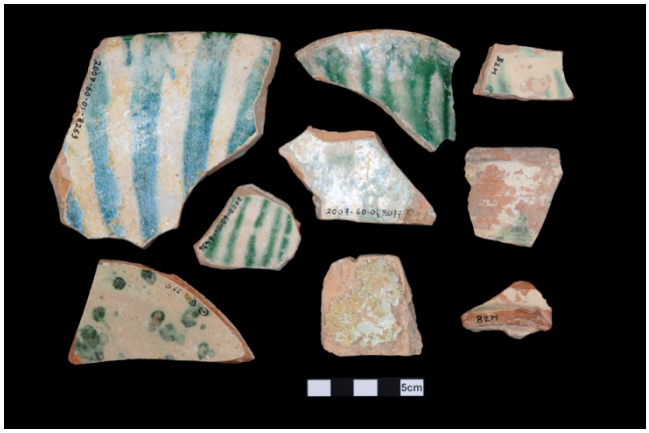


Plate 83 SPLASH.GW2

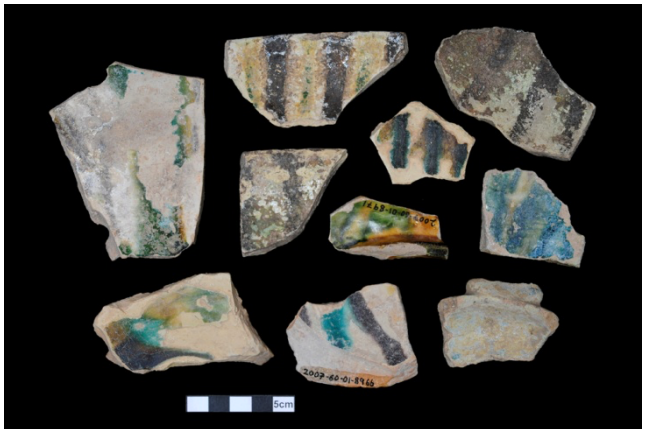


Plate 84 SPLASH.P1

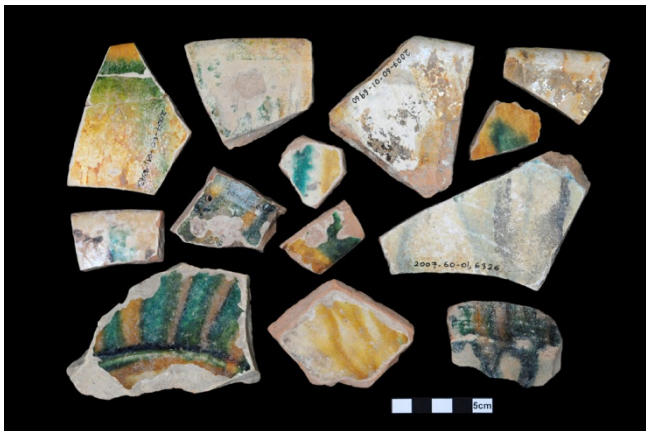


Plate 85 SPLASH.P2

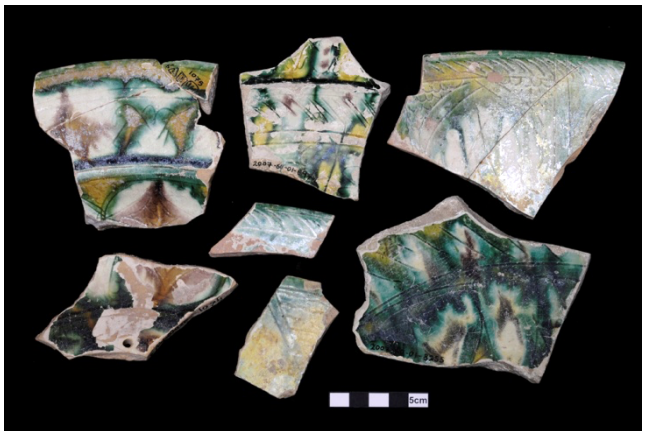


Plate 86 GRAF.EP1

Plate 87 GRAF.EP2

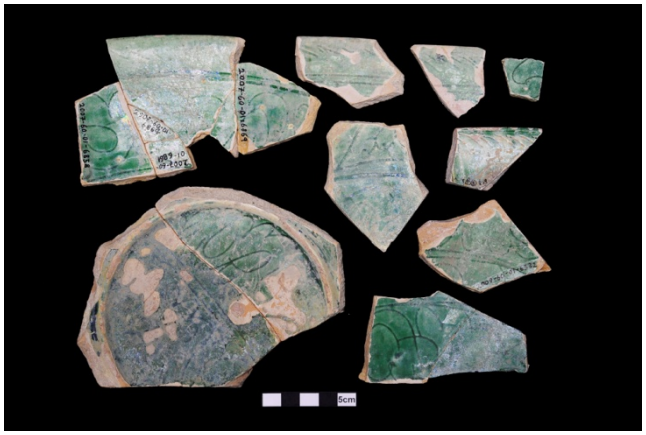


Plate 88 GRAF.EG

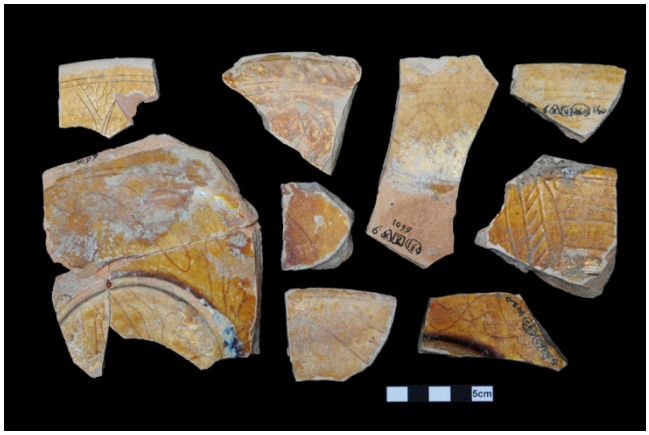


Plate 89 GRAF.EY

Plate 90 GRAF.TL

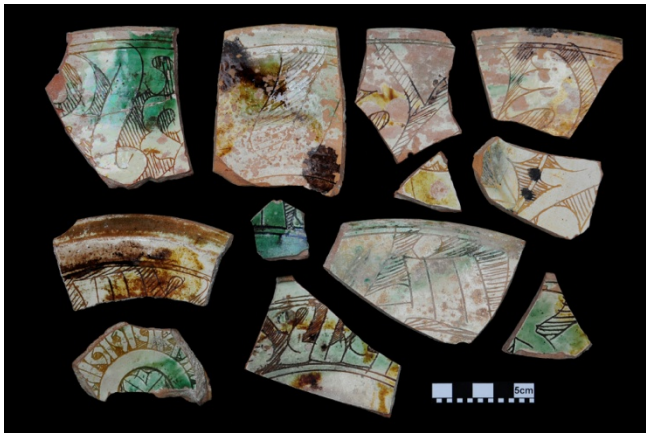


Plate 91 GRAF.H

Plate 92 CHAMP

Plate 93 GRAF.DI

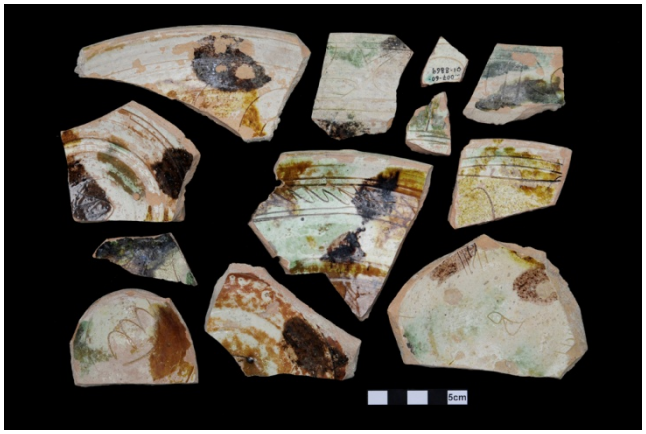


Plate 94 GRAF.LP

Plate 95 GRAF.GW

Plate 96 GRAF.GYB

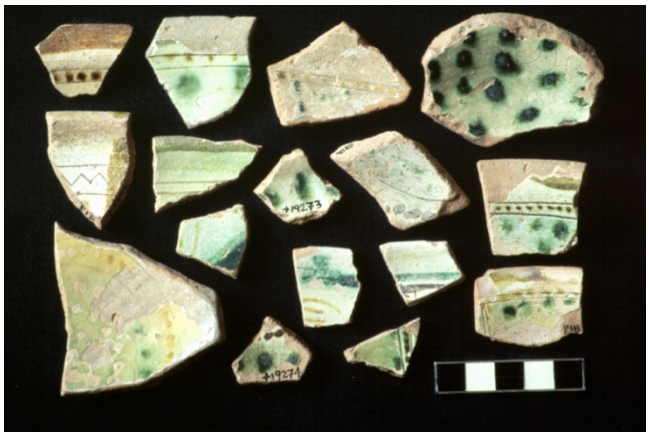


Plate 97 GRAF.S

Plate 98 GRAF.G

Plate 99 GRAF.Y

Plate 100 GRAF.M

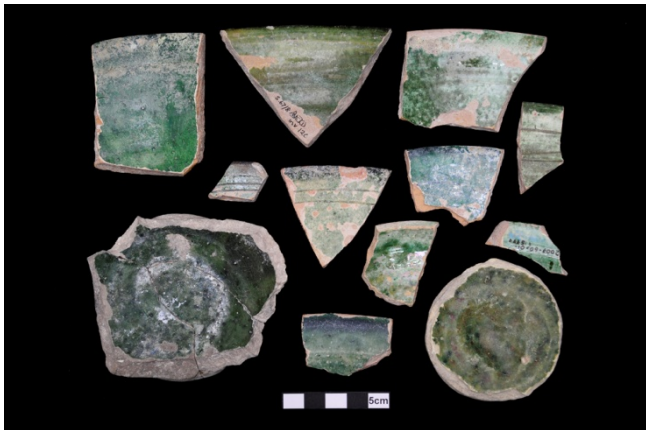


Plate 101 MONO.G

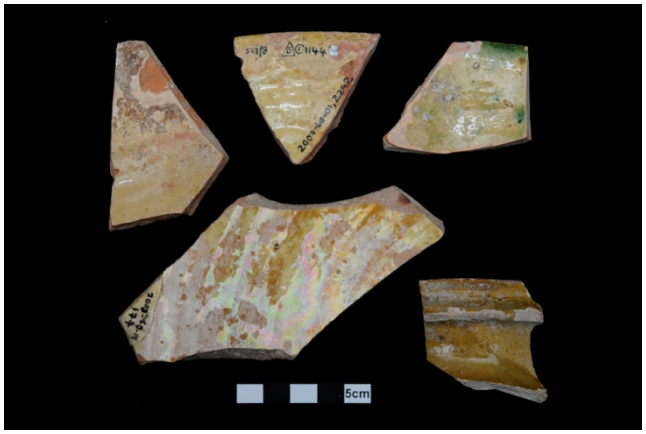


Plate 102 MONO.Y

Plate 103 SPW.BG

Plate 104 SPW.YB

Plate 105 SPW.BW

Plate 106 FRIT.L

Plate 107 FRIT.LB

Plate 108 FRIT.I

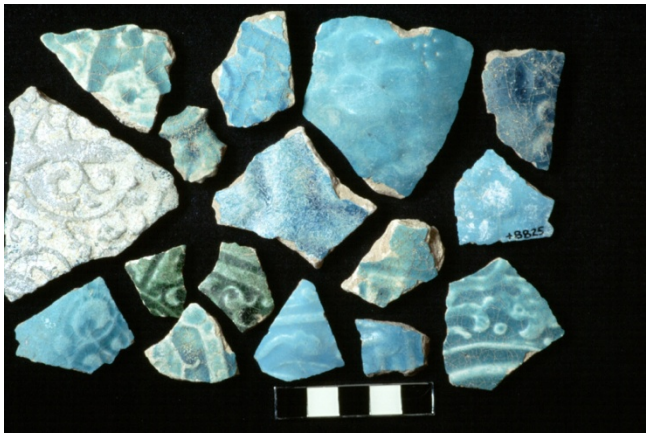


Plate 109 FRIT.M

Plate 110 FRIT.MIN

Plate 111 FRIT.BW

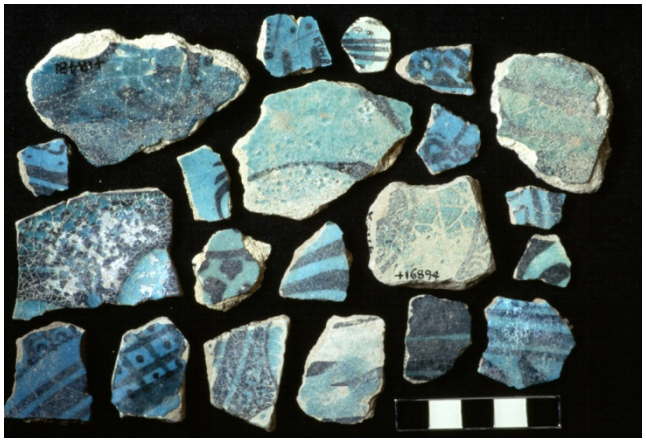


Plate 112 FRIT.TB

Plate 113 FRIT.GW

Plate 114 FRIT.EI

Plate 115 MGPAINT-1

Plate 116 MGPAINT-2

Plate 117 UGP.BW

Plate 118 UGP.TB

Plate 119 UGP.CB

Plate 120 UGP.GB

Plate 121 MONO.LG1

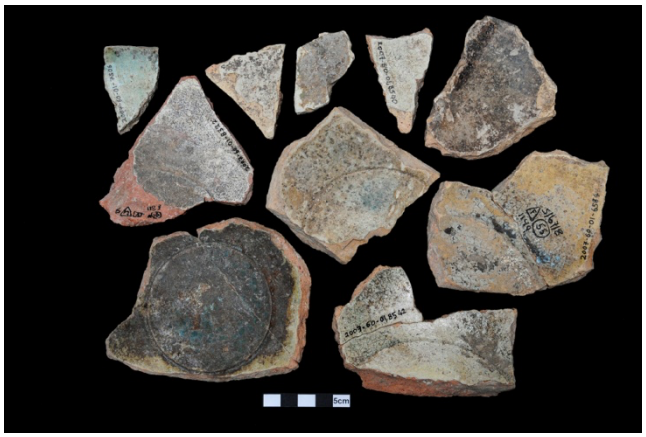


Plate 122 MONO.LG2

Plate 123 KHUNJ

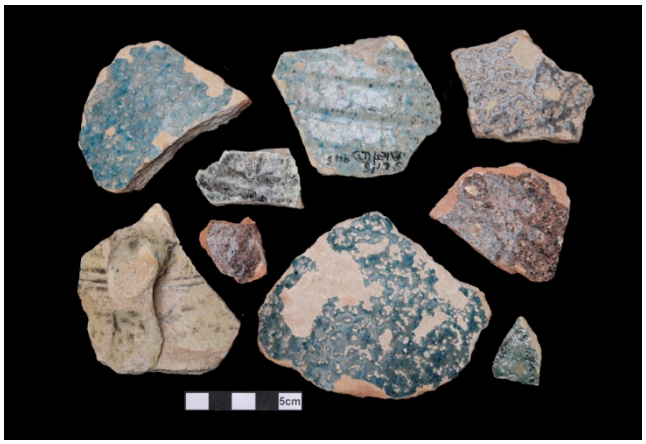


Plate 124 SPECLE.2

Plate 125 MONTUR

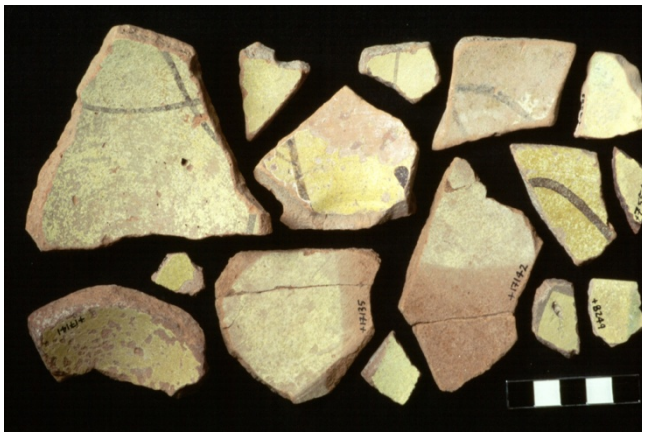


Plate 126 YEMEN

Plate 127 REDYEL

Plate 128 KD.1

Plate 129 KD.2

Plate 130 KD.3

Plate 131 KD.4

Plate 132 STONE-BLU

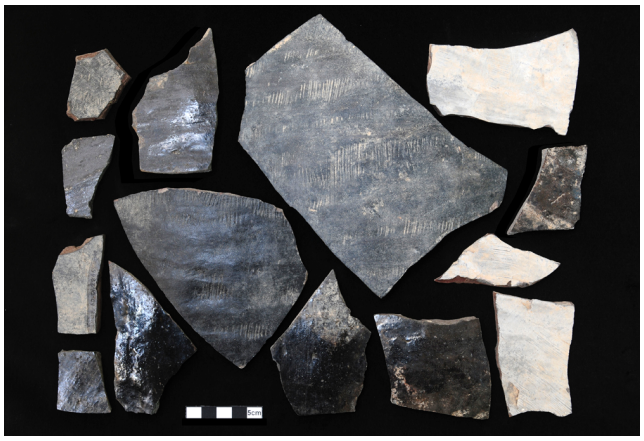


Plate 133 STONE-BG1

Plate 134 STONE-BG2

Plate 135 DUSUN

Plate 136 MTB-1

Plate 137 MTB-2

Plate 138 CHANG (Bowls)

Plate 139 CHANG (Ewers)

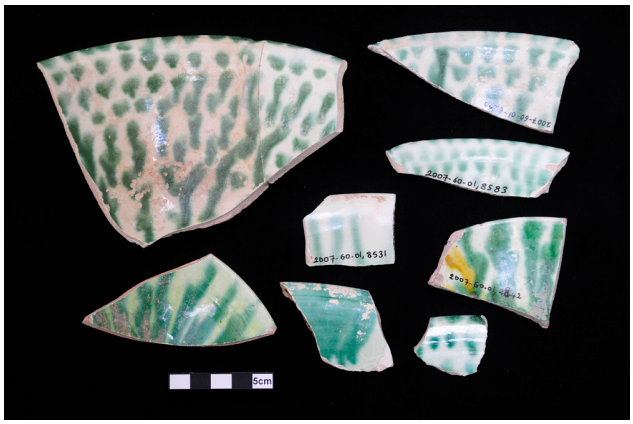


Plate 140 GWSG.1

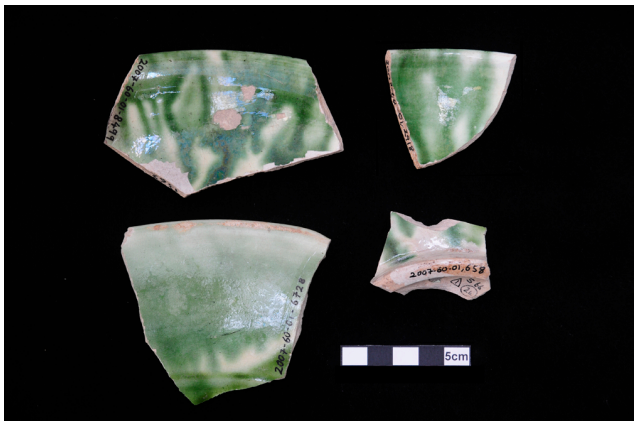


Plate 141 GWSG.2

Plate 142 GYSG

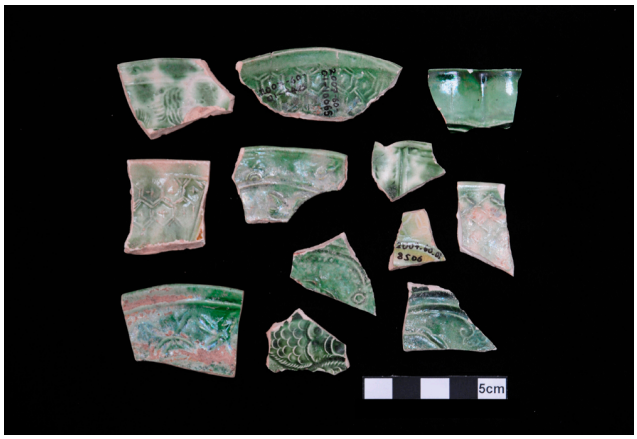


Plate 143 GM

Plate 144 WWSL

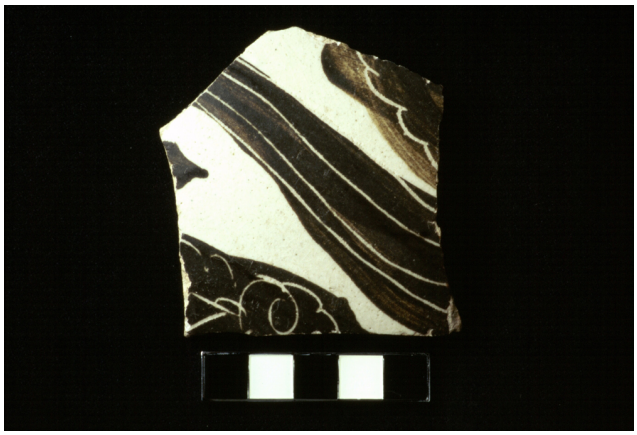


Plate 145 CIZHOU

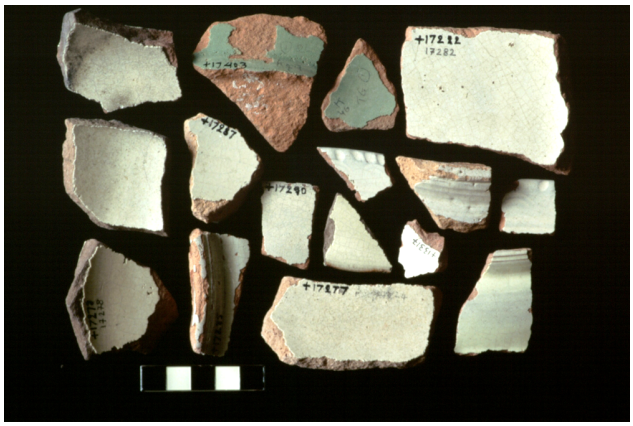


Plate 146 OPREW

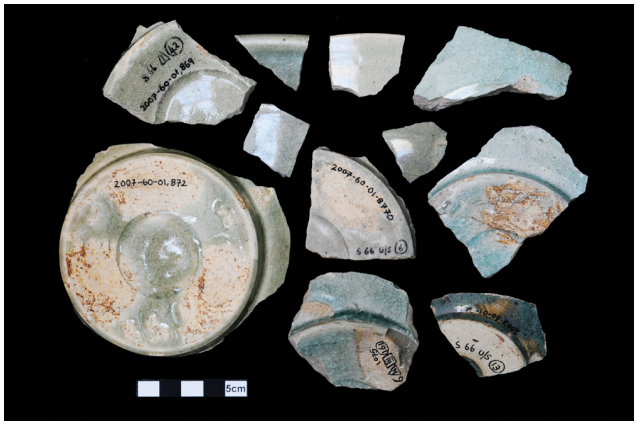


Plate 147 STONE-GU

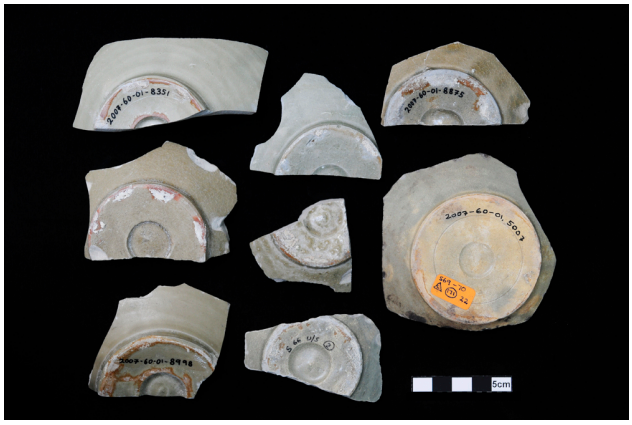


Plate 148 YUE.1 (YUE-B1)

Plate 149 YUE.2 (YUE-OR4)

Plate 150 YUE.2 (YUE-F1)

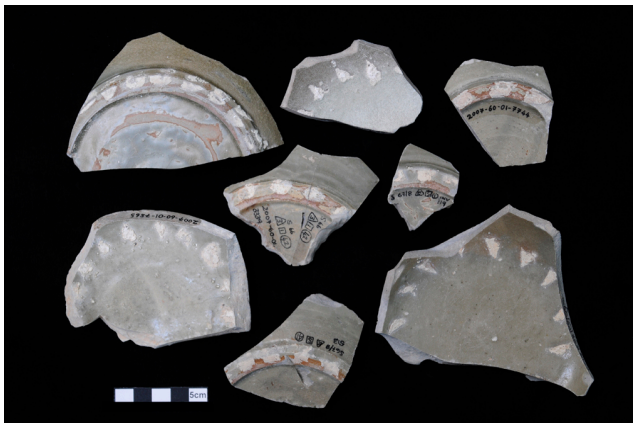


Plate 151 YUE.3 (YUE-B2)

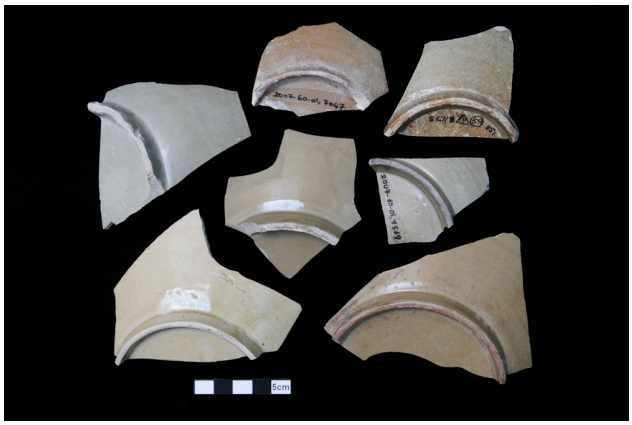


Plate 152 YUE.3 (YUE-B4)

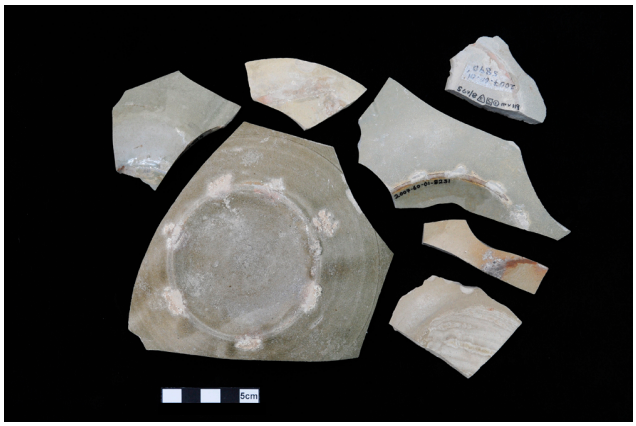


Plate 153 YUE.3 (YUE-B6)

Plate 154 YUE.4 (YUE-B5)

Plate 155 YUE.4 (YUE-B7)

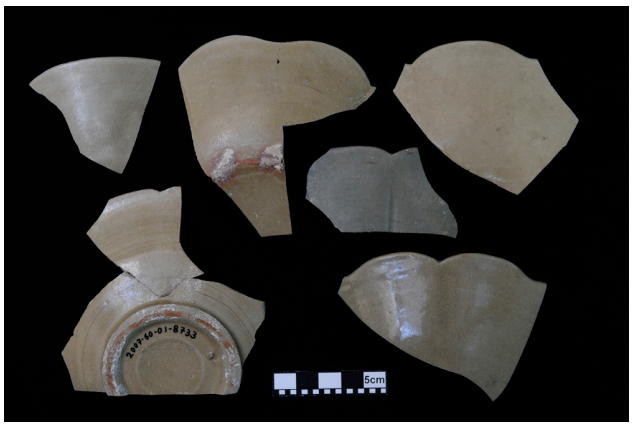


Plate 156 YUE.4 (YUE-OR5)

Plate 157 YAOZ

Plate 158 LQC

Plate 159 GDC.1

Plate 160 GDC.2

Plate 161 JDC

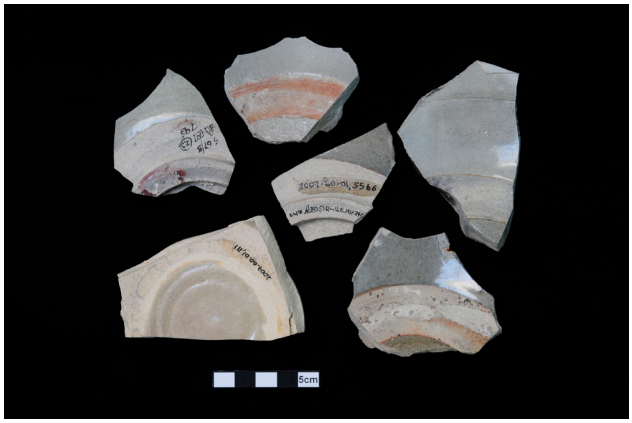


Plate 162 STONE-GRY

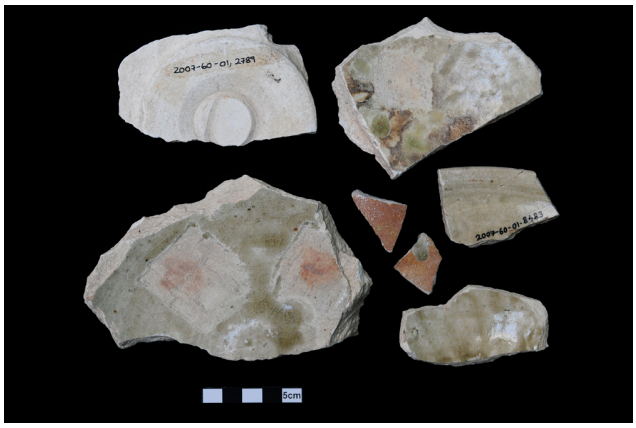


Plate 163 STONE-PLG

Plate 164 STONE-BUR

Plate 165 STONE-THAI

Plate 166 XING

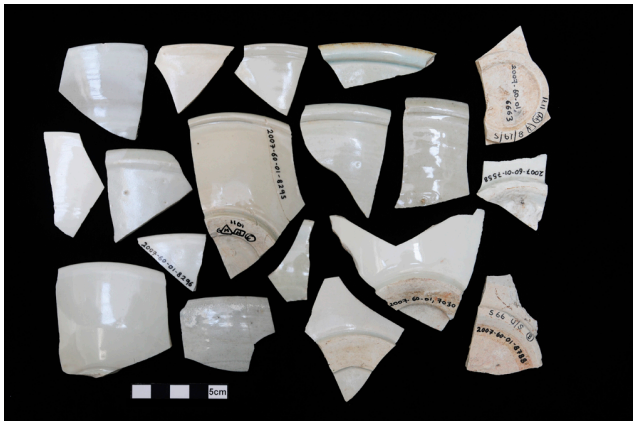


Plate 167 WW

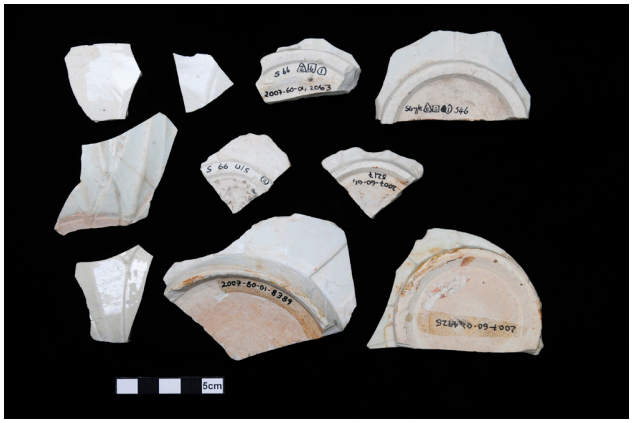


Plate 168 CWW

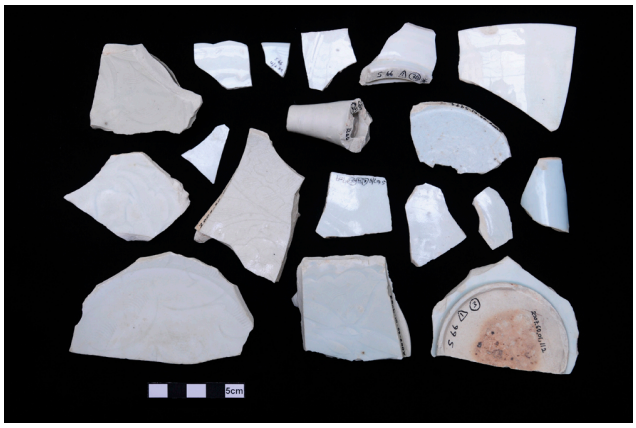


Plate 169 QING

Plate 170 DEHUAUA

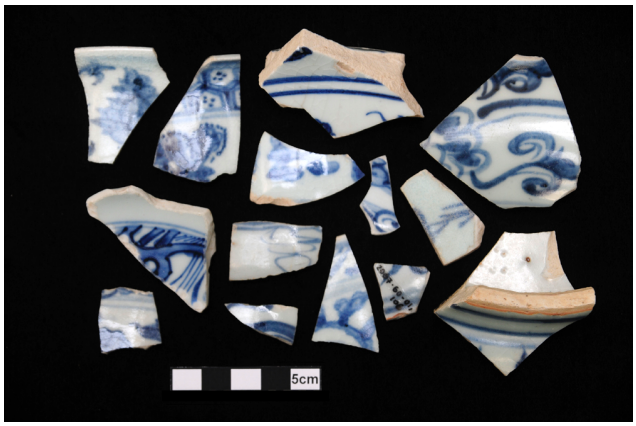


Plate 171 CBW.1

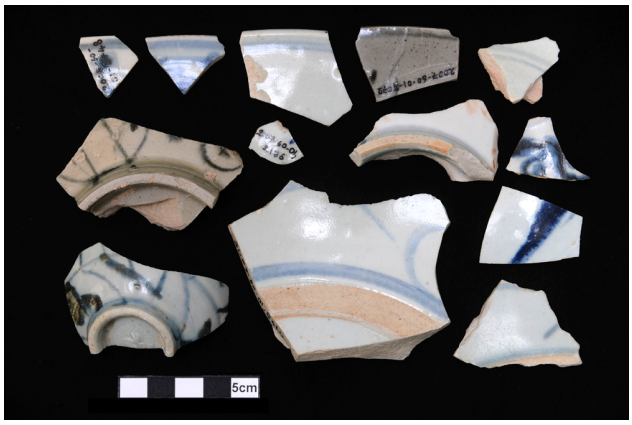


Plate 172 CBW.2

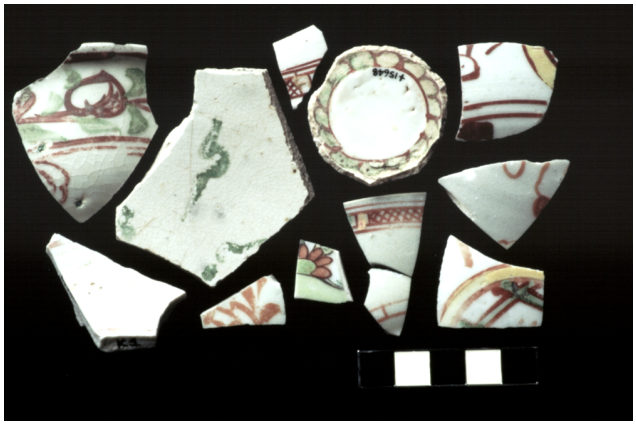


Plate 173 ENAM

Plate 174 VBW

Vessel Types

Group	Description	Associated Class(es)	Figures
BUF	Buff Wares	BUFF.I, BUFF.S, BUFF.P, STAMP, HONEY, RUST	159-161, 165
CHA	Changsha Painted Stoneware	CHANG	76-80
CHM	Crude Handmade Wares	CHAMP, HMPW#	169-175
EAF	East African Tana Ware	EACOP	191
EGG	Eggshell Wares	EGG.PI, EGG.M	146-152, 158
FOP	Fine Orange Painted Ware	FOPW.1-2	146
FRI	Frit-Bodied Glazed Ware	FRIT#	59
GGW	Gulf Glazed Wares	FRIT (Late), MGPAINT#, UGP, MONO.LG1-2, REDYEL, KHUNJ, SPECLE#	60-70
GGS	Other Green-Glazed Stoneware	STONE-GRY, STONE-BUR, STONE-THAI	101-104
GLM	Glazed Moulded Wares	GLAMO.Y	25
HAR	Hard Lime-Spalled Coarse Wares	CLINKY, HARLIM, REBROS, CREAC	112-145
IND	Indian	IRPW, SBBW, HARMIC, BUFRAB, LINVES, IRAB	182-190
JUL	Julfar Ware	JULFAR, JULFAR.PB, JULFAR.RW	176-181
LIM	Lime-Tempered Ware	LIME	166
LQC	Longquan Celadon	LQC	92-100
MTB	Martaban Brown-Glazed Stoneware	MTB-1, MTB-2	104
PCW	Plain Coarse Wares	HARC, FIBIC, HAGRIT, REGTEC	167-169
POR	East Asian Porcelain	XING, WW, QING, DEHUA	105-111
SAM	Samarra Horizon Glazed Wares	OPAQ#, SPLASH#, GRAF.E#, GRAF.TL	26-50
SGR	Late Sgraffiatos	GRAF.H, DI, LP, GW, GYB, S, LG, LY, M, CHAMP, MONO.G, Y	51-58
SSV	Stoneware Storage Vessels	STONE-BLU, STONE-BG1-2, DUSUN	71-75
TOR	Torpedo Jars	TORP-S, TORP-C	162-165
TUR	Turquoise Alkaline-Glazed Wares	TURQ.YG, TURQ.T	1-24
WHI	White Wares	WHITE.PI, WHITE.M	153-158
WST	White Stoneware	GWSG, GYSG, GM, WWSL	81-84
YUE	Yue Ware	YUE.1-4	85-91

Table 3 *Key to the type cluster codes that define each type series grouping*

TUR – Turquoise Alkaline-Glazed Wares

Type	Form	Class(es)	Illustration	Concordance	Description
TUR-OR1	Bowl	TURQ.T	Fig. 1: a-d	Kennet, 2004: Type 25; Priestman, 2005a: ALK: 01 (some)	Simple pointed lip
TUR-OR2	Bowl	TURQ.T	Fig. 1: e-k	Kennet, 2004: Type 62; Priestman, 2005a: ALK: 03	Bevelled pointed lip. The single illustrated example of Type 62 from Kush has more upright sides and it appears the posture of the drawing may be wrong
TUR-OR3	Bowl	TURQ.YG	Fig. 1: l-n	Kennet, 2004: Type 94; Priestman, 2005a: ALK: 10	Rounded rim with internal recess. The two examples illustrated from Kush are different types, only the 2nd example (K5525) taken as being representative
TUR-OR4	Bowl	TURQ.T	Fig. 2: a-g	Kennet, 2004: Type 33; Priestman, 2005a: ALK: 01 (some)	Slightly in-turned lip; may be the same as Kush Type 33
TUR-OR5	Bowl	TURQ.T	Figs. 3-4	Kennet, 2004: Type 72; Priestman, 2005a: ALK: 12	Carinated bowl with rounded lip
TUR-OR6	Bowl	TURQ.T	Fig. 5: a-e		Carinated bowl with a short projecting collar at the carination
TUR-OR7	Dish or bowl	TURQ.T	Fig. 5: f-h	Priestman, 2005a: ALK: 11	Lid bowl
TUR-OR8	Dish	TURQ.T	Fig. 6	Priestman, 2005a: ALK: 13	Wide, carinated dish with rounded 'T' form lip
TUR-OR9	Bowl	TURQ.T	Fig. 7: a-c		Large, flange-rimmed bowl with ribs on the inner face
TUR-OR10	Dish	TURQ.T	Fig. 7: d-e	Priestman, 2005a: ALK: 02 (some)	Large, thick-walled bowl with deep ribbing on interior and incised decoration on exterior
TUR-OR11	Bowl	TURQ.T	Fig. 7: f-g	Priestman, 2005a: ALK: 15 (some)	Bevel rimmed bowl
TUR-OR12	Basin	TURQ.T	Fig. 8		Rounded flange; unglazed equivalent BUF-OR1
TUR-OR13	Basin	TURQ.T	Fig. 9		Hooked flange
TUR-OR14	Basin or bowl	TURQ.T	Fig. 10		Long, sloping, folded flange
TUR-OR15	Basin	TURQ.T	Fig. 11: a-c		Domed 'T' section lip

Type	Form	Class(es)	Illustration	Concordance	Description
TUR-OR16	Basin	TURQ.T	Fig. 11: d-e	Priestman, 2005a: ALK: 27	Heavy sloping 'T' section rim with squared bottom to lip
TUR-OR17	Dish lamp	TURQ.T	Fig. 24: f-j	Kennet, 2004: Type 61	Dish lamp with an applied flat-topped handle and a pulled spout. Same form as SAM-OR19 but with turquoise alkaline glaze
TUR-CR1	Storage jar	TURQ.T	Figs, 12-14	Priestman, 2005a: ALK: 31-32; Priestman, 2016: JR5	Closed collar neck with an externally folded lip. Thick butterfly handles attached at the exterior
TUR-CR2	Jar	TURQ.T	Fig. 15: i-r		Straight-necked jar with an everted and rounded lip
TUR-CR3	Jar	TURQ.T	Fig. 16: a-g		Straight-necked vessel with a slightly thickened lip
TUR-CR4	Jar	TURQ.T	Fig. 16: h-k		Wide-mouthed jar with a domed rim with a sharply defined lower lip
TUR-CR5	Jar	TURQ.T	Fig. 17: a-d		Everted, thickened rim with a splayed lip
TUR-CR6	Jar	TURQ.T	Fig. 17: e-g	Priestman, 2005a: ALK: 21 (some)	Domed thickened rim
TUR-CR7	Jar	TURQ.T	Figs. 18-19	Priestman, 2005a: ALK: 26 (some)	Collar-necked jar with a rounded, thickened lip
TUR-CR8	Jar	TURQ.T	Fig. 20: a-g	Priestman, 2005a: ALK: 25	Offset rim with a squared horizontal lip
TUR-CR9	Jar	TURQ.T	Fig. 20: h-i	Priestman, 2005a: ALK: 24	Everted rim with narrowing both on the interior and exterior
TUR-CR10	Vat	TURQ.T	Fig. 20: j-k		Wide-mouthed jar, or vat, with a deep recess to hold a lid
TUR-CR11	Jar	TURQ.T	Fig. 21: a-f		Steeply angled, straight-sided vessel with elaborate, chip carved decoration on the exterior
TUR-CR12	Jar	TURQ.T	Fig. 21: g-h		Closed mouth jar with a thickened, rounded lip and ridges below the rim exterior
TUR-CR13	Jar	TURQ.YG	Figs. 22-23	Kennet, 2004: Type 64; Priestman, 2005a: ALK: 29-30	Wide-mouthed vat, or jar, with thick walls and a notched, or bifurcating, rim
TUR-CR14	Jar	TURQ.T	Not illustrated		Poorly defined type, needs to be divided into a number of separate sub-categories.

Type	Form	Class(es)	Illustration	Concordance	Description
TUR-B1	Jar	TURQ.T	Fig. 24: a-e		Solid concave base with a rounded, slightly projecting foot
TUR-H1	Storage Jar	TURQ.T	Figs. 12: a, e-f; 13: b-f; 14: f		Thick, false butterfly handle moulded to the neck and shoulder
TUR-F1	Storage Jar	TURQ.T	Fig. 15: a-h	Priestman, 2016: OC2	Applique decorated body sherds associated with TUR-CR1
TUR-F2	Jar	TURQ.T	Fig. 24: k-m		Thumb impressed chain-ridge cordon
TUR-F3	Jar	TURQ.T	Not illustrated		Chain-ridge cordon with cut notches
TUR-F4	Jar	TURQ.T	Fig. 21: a-d		Body sherds with cut away decoration associated with TUR-CR11
TUR-F5	Jar	TURQ.T	Not illustrated		Incised decoration on exterior, saw tooth, vertical incised lines, etc

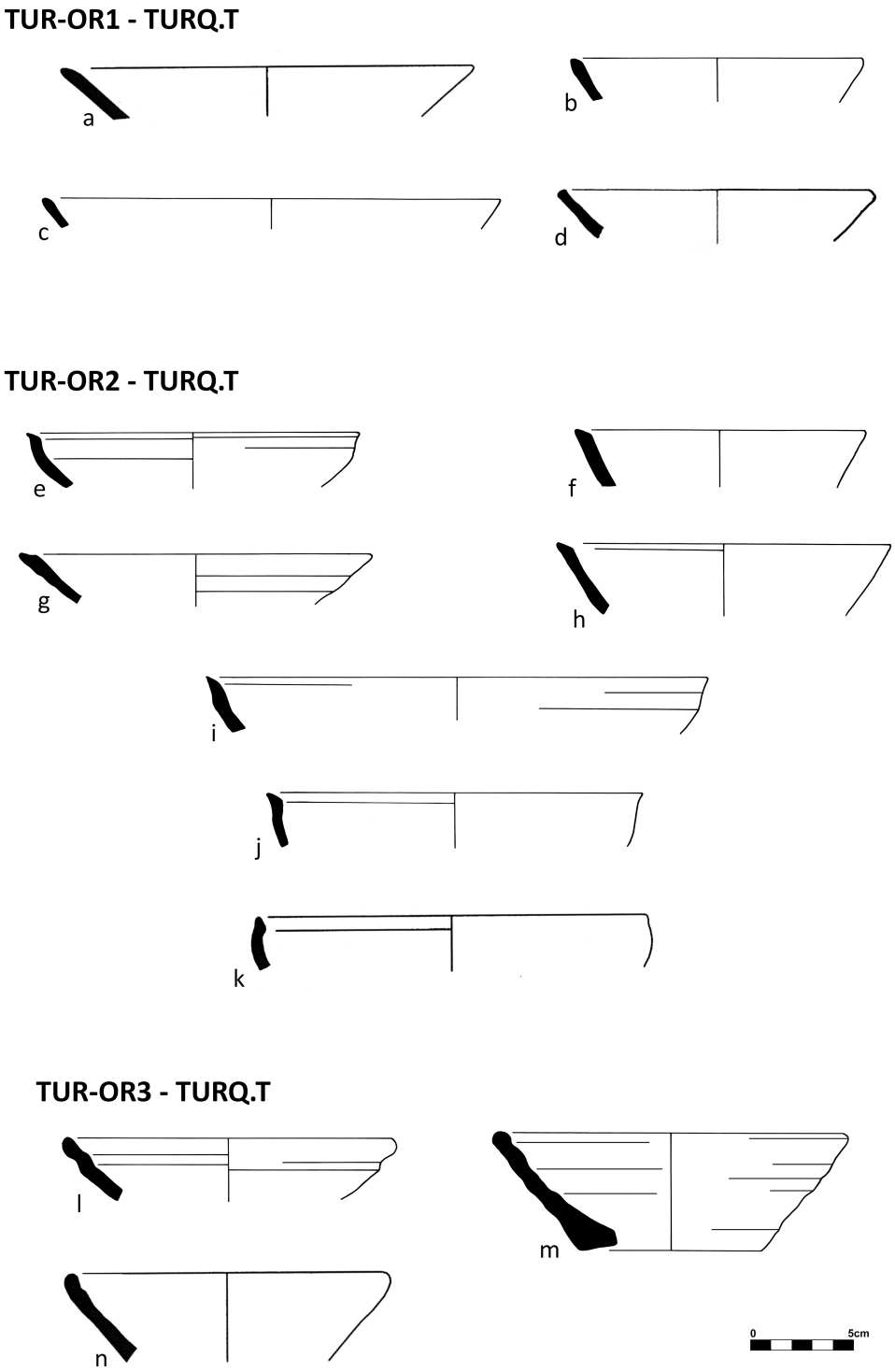


Figure 1 *a-d = TUR-OR1 (Type 25); e-k = TUR-OR2 (Type 62); l-n = TUR-OR3 (Type 94)*

Figure 1						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-OR1	TURQ.T	Kush	Kennet, 2004: fig. 5	K2472	1:3
b	TUR-OR1	TURQ.T	Williamson/ H83		3284	1:3
c	TUR-OR1	TURQ.T	Williamson/ H20T		3250	1:3
d	TUR-OR1	TURQ.T	Sohar	Kervran, 2004: fig. 14: 4	646.9	1:3
e	TUR-OR2	TURQ.T	Williamson/ AE3		16681	1:3
f	TUR-OR2	TURQ.T	Williamson/ H44		3342	1:3
g	TUR-OR2	TURQ.T	Williamson/ H78		2794	1:3
h	TUR-OR2	TURQ.T	Williamson/ K17		3898	1:3
i	TUR-OR2	TURQ.T	Williamson/ S		7837	1:3
j	TUR-OR2	TURQ.T	Williamson/ S2		8497	1:3
k	TUR-OR2	TURQ.T	Kush	Kennet, 2004: fig. 5	K2209	1:3
l	TUR-OR3	TURQ.YG	Williamson/ K102A		13153	1:3
m	TUR-OR3	TURQ.YG	Williamson/ H40		2977	1:3
n	TUR-OR3	TURQ.YG	Kush	Kennet, 2004: fig. 5	K5525	1:3

TUR-OR4 - TURQ.T

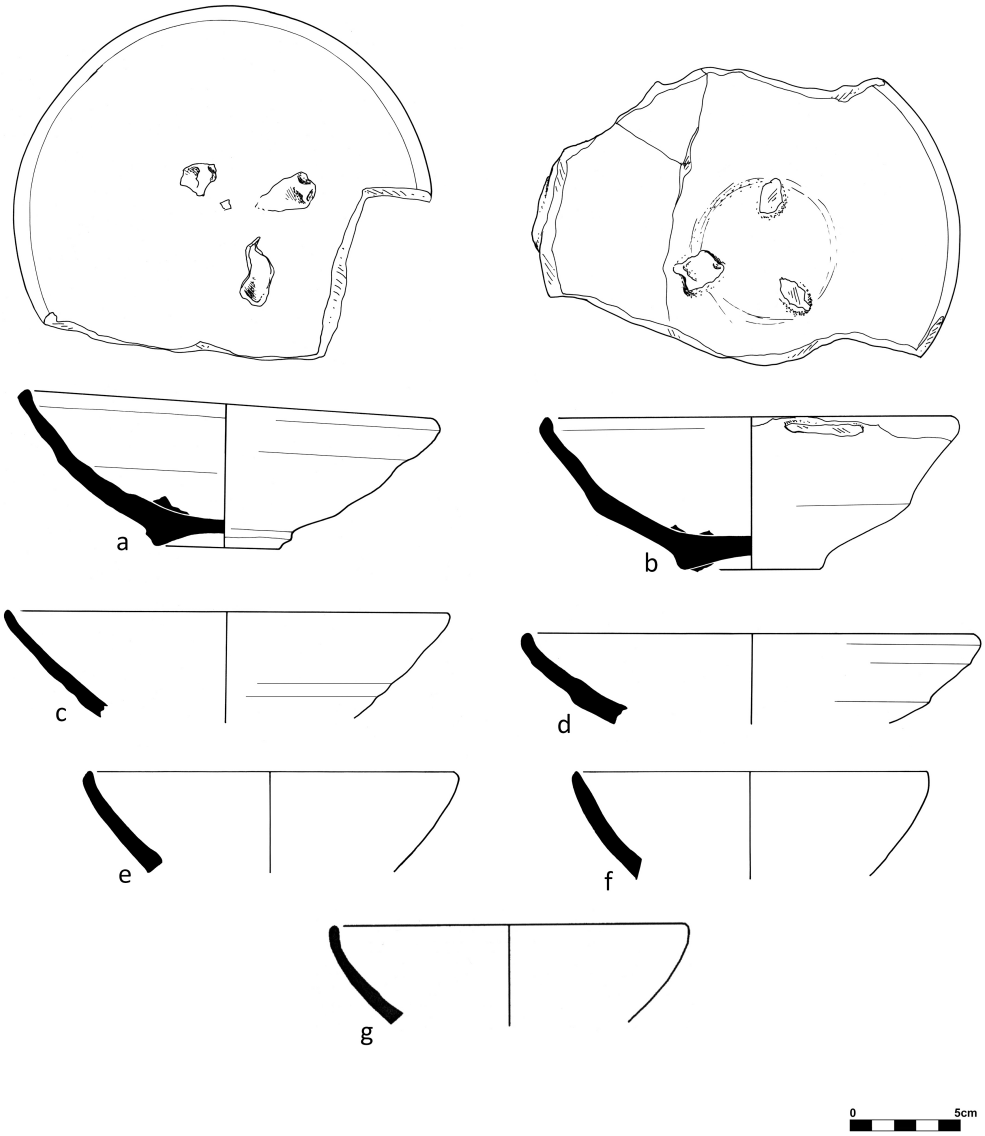


Figure 2 *a-g = TUR-OR4 (Type 33)*

Figure 2						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-OR4	TURQ.T	Siraf		2007.6001,9840	1:3
b	TUR-OR4	TURQ.T	Siraf		2007.6001,2792	1:3
c	TUR-OR4	TURQ.T	Siraf		2007.6001,9346	1:3
d	TUR-OR4	TURQ.T	Siraf		2007.6001,1027	1:3
e	TUR-OR4	TURQ.T	Williamson/ H38		3371	1:3
f	TUR-OR4	TURQ.T	Williamson/ K102C		13173	1:3
g	TUR-OR4	TURQ.T	Kush	Kennet, 2004: fig. 5	K9	1:3

TUR-OR5 (Type 72) - TURQ.T

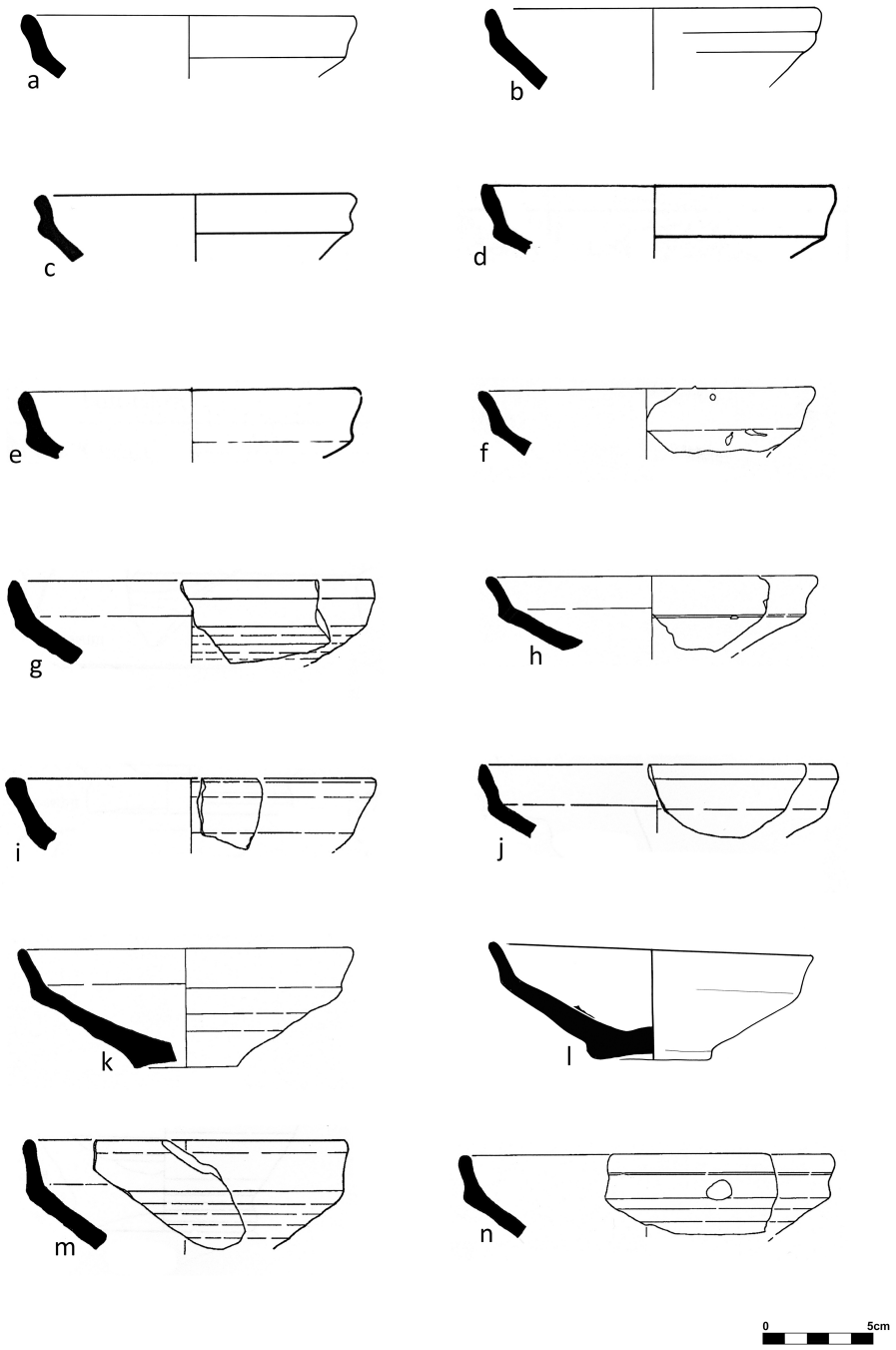


Figure 3 *a-n = TUR-OR5 (Type 72)*

Figure 3						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-OR5	TURQ.T	Williamson/ H92		3073	1:3
b	TUR-OR5	TURQ.T	Williamson/ D14B		3190	1:3
c	TUR-OR5	TURQ.T	Kush	Kennet, 2004: fig. 5	K3354	1:3
d	TUR-OR5	TURQ.T	Sohar	Kervran, 2004: fig. 12: 6	681.1	1:3
e	TUR-OR5	TURQ.T	Sohar	Kervran, 2004: fig. 10: 17	690.6	1:3
f	TUR-OR5	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 1996: fig.43	JHU95-100 L.3	1:3
g	TUR-OR5	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 2000: fig. 10	JHU98-22	1:3
h	TUR-OR5	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 1996: fig.43	JHU95-87 L.2	1:3
i	TUR-OR5	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 2000: fig. 10	JHU98-27	1:3
j	TUR-OR5	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 2000: fig. 10	JHU98-28	1:3
k	TUR-OR5	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 1996: fig.43	JHU95-4 L.1	1:3
l	TUR-OR5	TURQ.T	Siraf		2007.6001,2968	1:3
m	TUR-OR5	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 2000: fig. 10	JHU98-29	1:3
n	TUR-OR5	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 1996: fig.43	JHU95-6 L.1	1:3

TUR-OR5 (Type 72) - TURQ.T

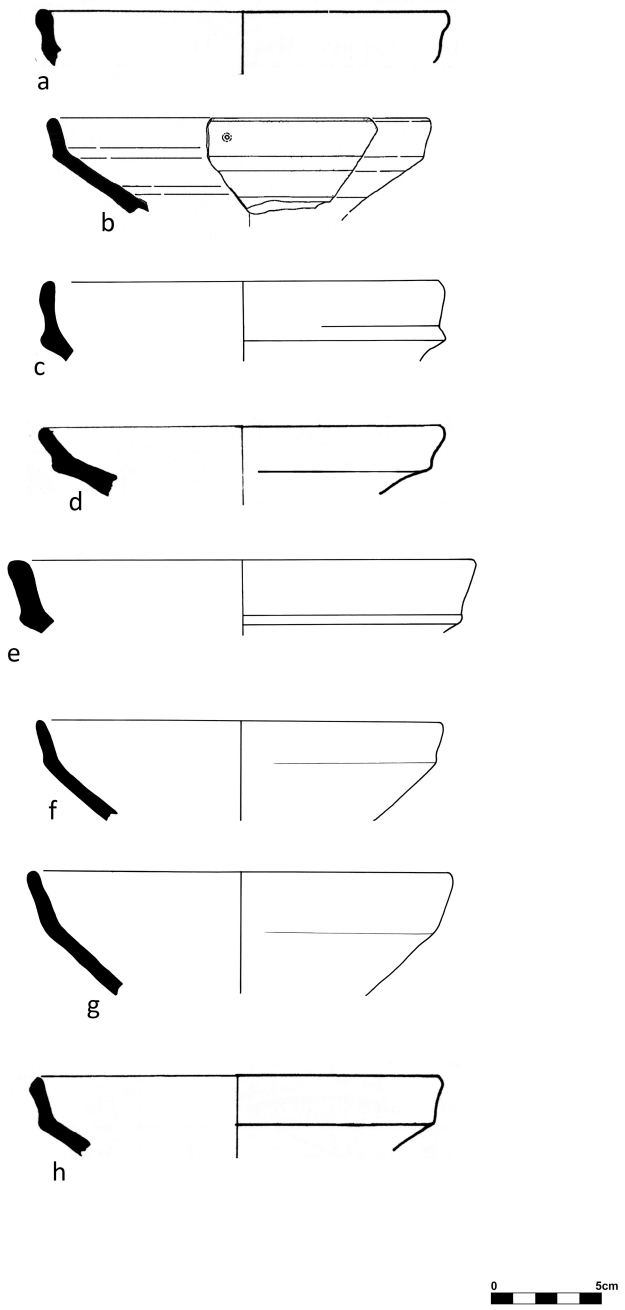
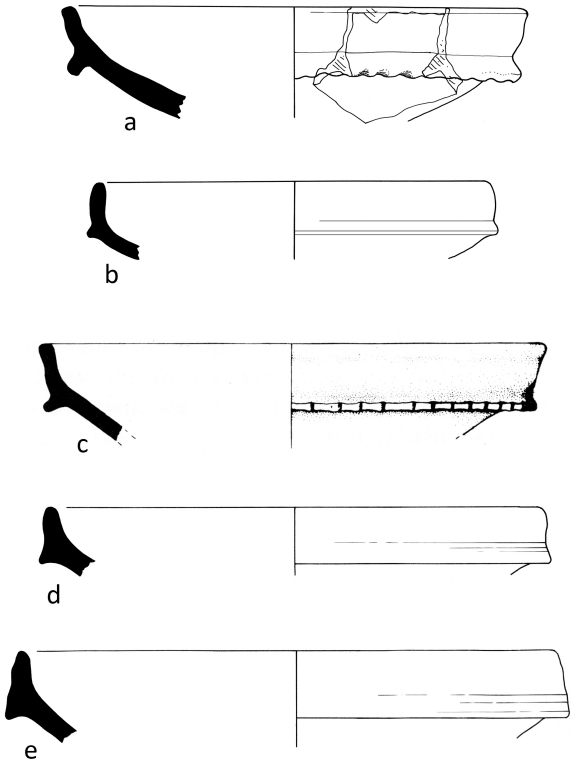


Figure 4 *a-h = TUR-OR5 (Type 72)*

Figure 4						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-OR5	TURQ.T	Sohar	Kervran, 2004: fig. 12: 8	651.1	1:3
b	TUR-OR5	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 1996: fig.43	JHU95-5 L.1	1:3
c	TUR-OR5	TURQ.T	Williamson/ B15		18618	1:3
d	TUR-OR5	TURQ.T	Sohar	Kervran, 2004: fig. 10: 18	690.1	1:3
e	TUR-OR5	TURQ.T	Williamson/ H82		3150	1:3
f	TUR-OR5	TURQ.T	Siraf		2007.6001,3018	1:3
g	TUR-OR5	TURQ.T	Siraf		2007.6001,4586	1:3
h	TUR-OR5	TURQ.T	Sohar	Kervran, 2004: fig. 12: 7	681.2	1:3

TUR-OR6 - TURQ.T



TUR-OR7 - TURQ.T

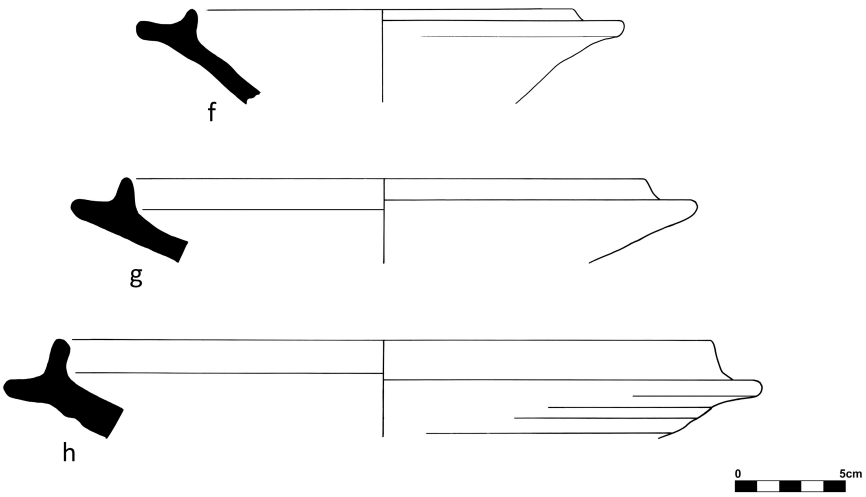


Figure 5 *a-e = TUR-OR6; f-h = TUR-OR7*

Figure 5						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-OR6	TURQ.T	Siraf		2007.6001,1294	1:3
b	TUR-OR6	TURQ.T	Siraf		2007.6001,2800	1:3
c	TUR-OR6	TURQ.T	Manda	Chittick, 1984: fig. 36: a		1:3
d	TUR-OR6	TURQ.T	Unguja Ukuu		UU14/1406	1:3
e	TUR-OR6	TURQ.T	Unguja Ukuu		UU14/1406	1:3
f	TUR-OR7	TURQ.T	Siraf		2007.6001,3043	1:3
g	TUR-OR7	TURQ.T	Williamson/ H20K		3602	1:3
h	TUR-OR7	TURQ.T	Williamson/ H94		3400	1:3

TUR-OR8 - TURQ.T

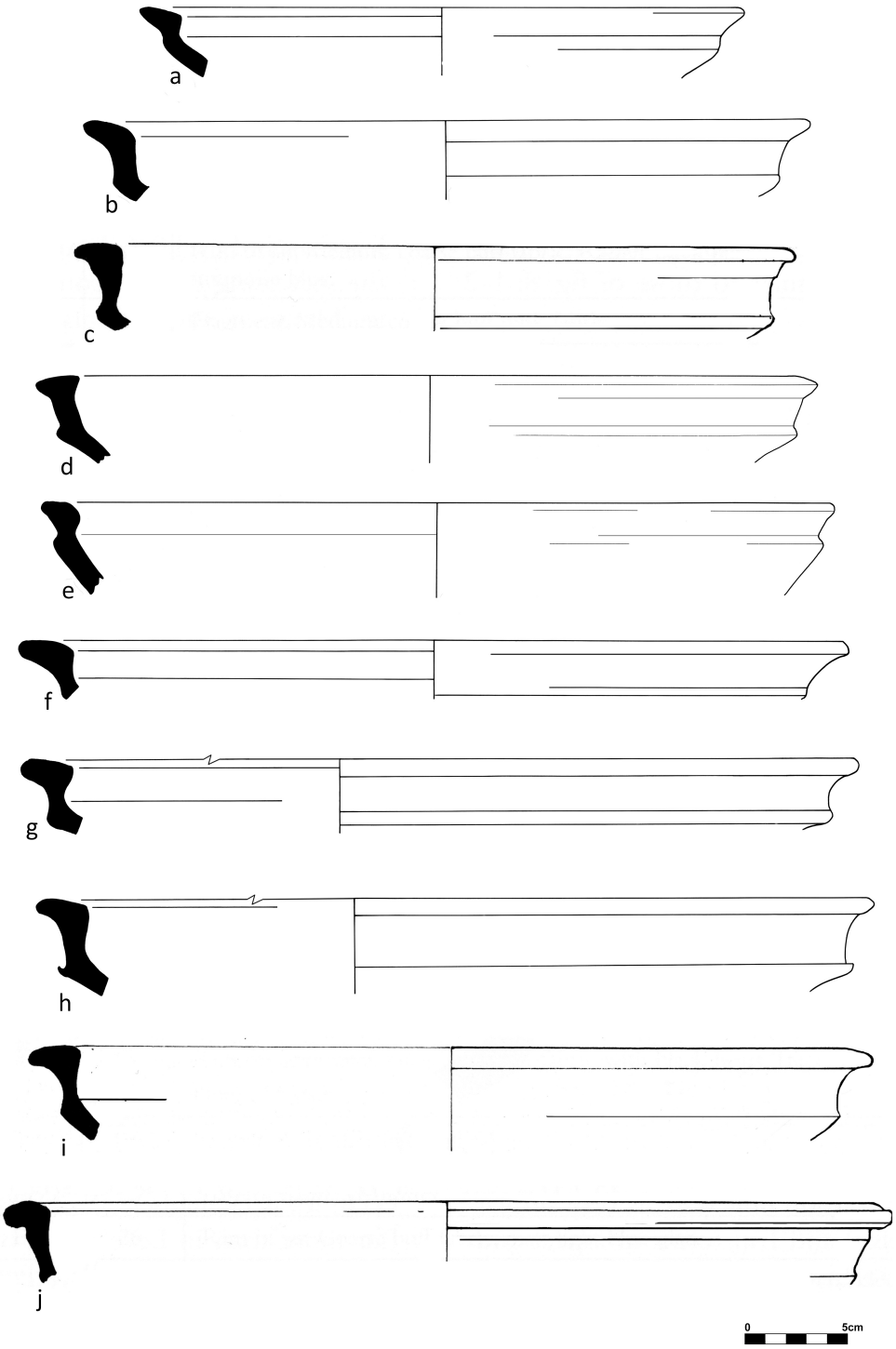
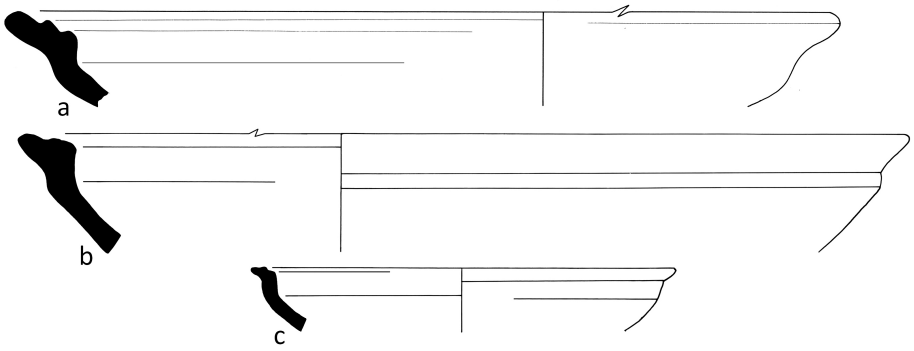


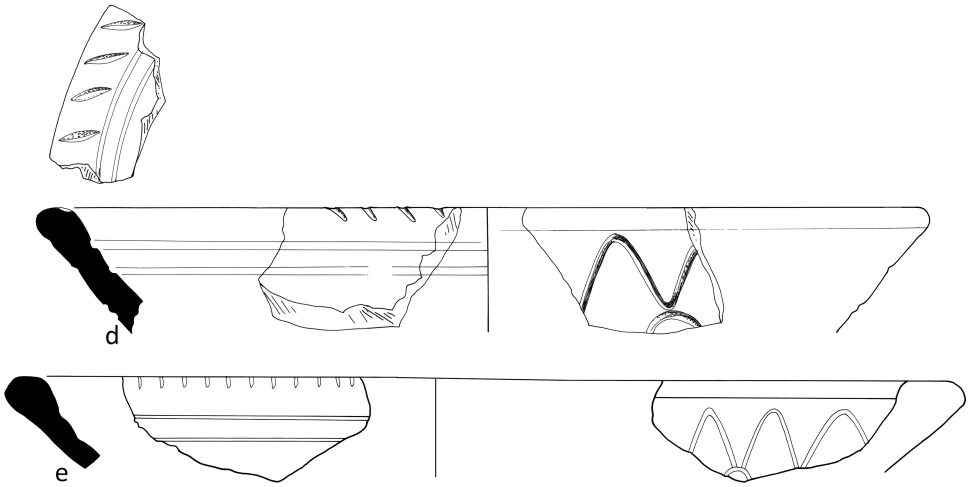
Figure 6 *a-j = TUR-OR8*

Figure 6						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-OR8	TURQ.T	Williamson/ K70B		16669	1:3
b	TUR-OR8	TURQ.T	Williamson/ B4		18625	1:3
c	TUR-OR8	TURQ.T	Sohar	Kervran, 2004: fig. 8: 2	702.1	1:3
d	TUR-OR8	TURQ.T	Siraf		2007.6001,3037	1:3
e	TUR-OR8	TURQ.T	Siraf		2007.6001,3019	1:3
f	TUR-OR8	TURQ.T	Williamson/ H17A		3132	1:3
g	TUR-OR8	TURQ.T	Williamson/ H18		3023	1:3
h	TUR-OR8	TURQ.T	Williamson/ H84		2888	1:3
i	TUR-OR8	TURQ.T	Sohar	Kervran, 2004: fig. 10: 19	690.8	1:3
j	TUR-OR8	TURQ.T	Sohar	Kervran, 2004: fig. 8: 1	702.2	1:3

TUR-OR9 - TURQ.T



TUR-OR10 - TURQ.T



TUR-OR11 - TURQ.T

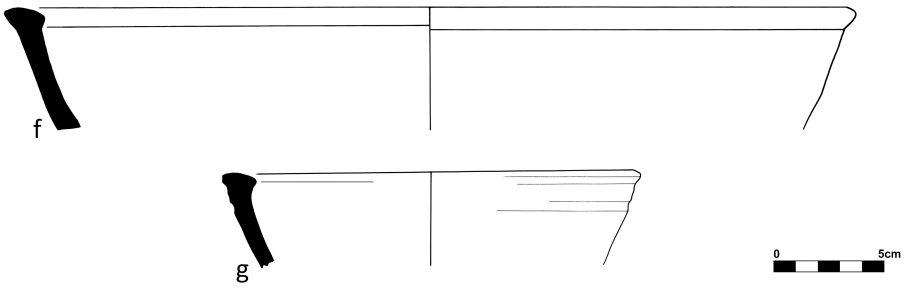


Figure 7 *a-c = TUR-OR9; d-e = TUR-OR10; f-g = TUR-OR11*

Figure 7						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-OR9	TURQ.T	Siraf		2007.6001,3026	1:3
b	TUR-OR9	TURQ.T	Williamson/ H11		3043	1:3
c	TUR-OR9	TURQ.T	Williamson/ H12		3354	1:3
d	TUR-OR10	TURQ.T	Siraf		2007.6001,4613	1:3
e	TUR-OR10	TURQ.T	Williamson/ AE1		16642	1:3
f	TUR-OR11	TURQ.T	Williamson/ S2		8266	1:3
g	TUR-OR11	TURQ.T	Siraf		2007.6001,6977	1:3

TUR-OR12 - TURQ.T

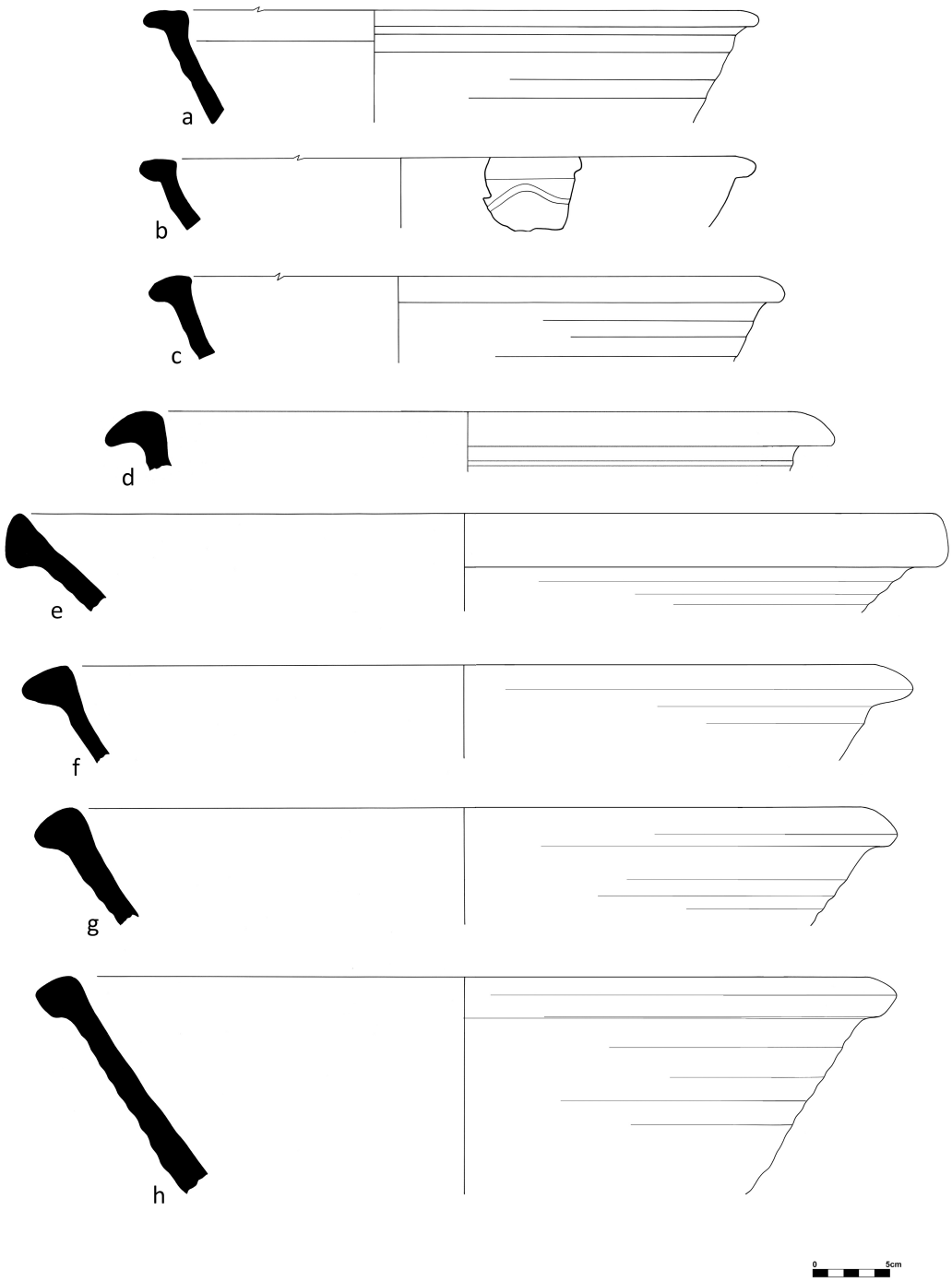


Figure 8 *a-h = TUR-OR12*

Figure 8						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-OR12	TURQ.T	Williamson/ H17A		3051	1:4
b	TUR-OR12	TURQ.T	Williamson/ H17A		3107	1:4
c	TUR-OR12	TURQ.T	Williamson/ D18C		3178	1:4
d	TUR-OR12	TURQ.T	Unguja Ukuu		UU14/1418	1:4
e	TUR-OR12	TURQ.T	Siraf		2007.6001,2057	1:4
f	TUR-OR12	TURQ.T	Siraf		2007.6001,855	1:4
g	TUR-OR12	TURQ.T	Siraf		2007.6001,1801	1:4
h	TUR-OR12	TURQ.T	Siraf		2007.6001,974	1:4

TUR-OR13 - TURQ.T

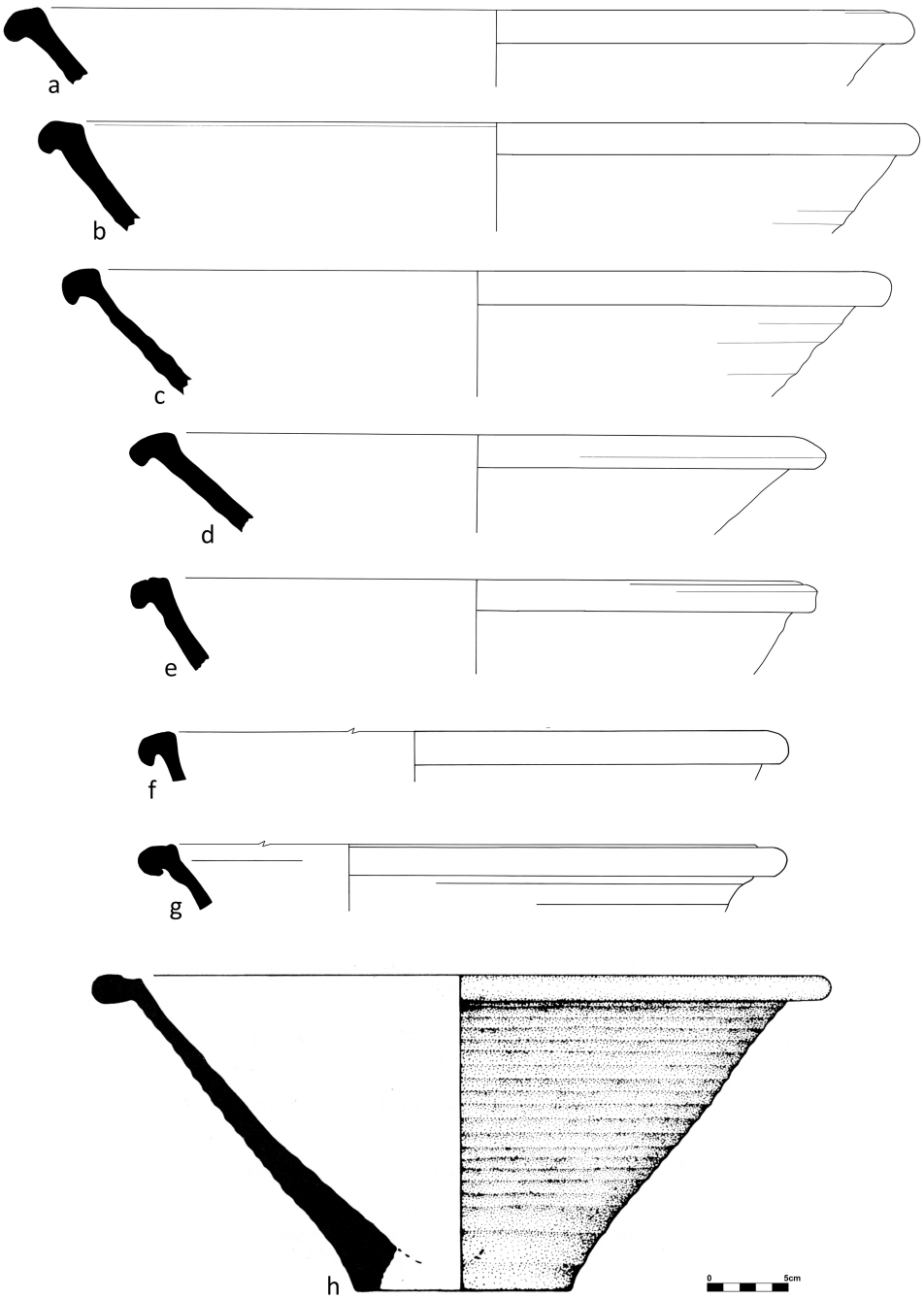


Figure 9 *a-h = TUR-OR13*

Figure 9						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-OR13	TURQ.T	Siraf		2007.6001,6897	1:4
b	TUR-OR13	TURQ.T	Siraf		2007.6001,856	1:4
c	TUR-OR13	TURQ.T	Siraf		2007.6001,8952	1:4
d	TUR-OR13	TURQ.T	Siraf		2007.6001,9371	1:4
e	TUR-OR13	TURQ.T	Siraf		2007.6001,831	1:4
f	TUR-OR13	TURQ.T	Williamson/ H20C		2898	1:4
g	TUR-OR13	TURQ.T	Williamson/ K143		16667	1:4
h	TUR-OR13	TURQ.T	Manda	Chittick, 1984: fig. 34: d		1:5

TUR-OR14 - TURQ.T

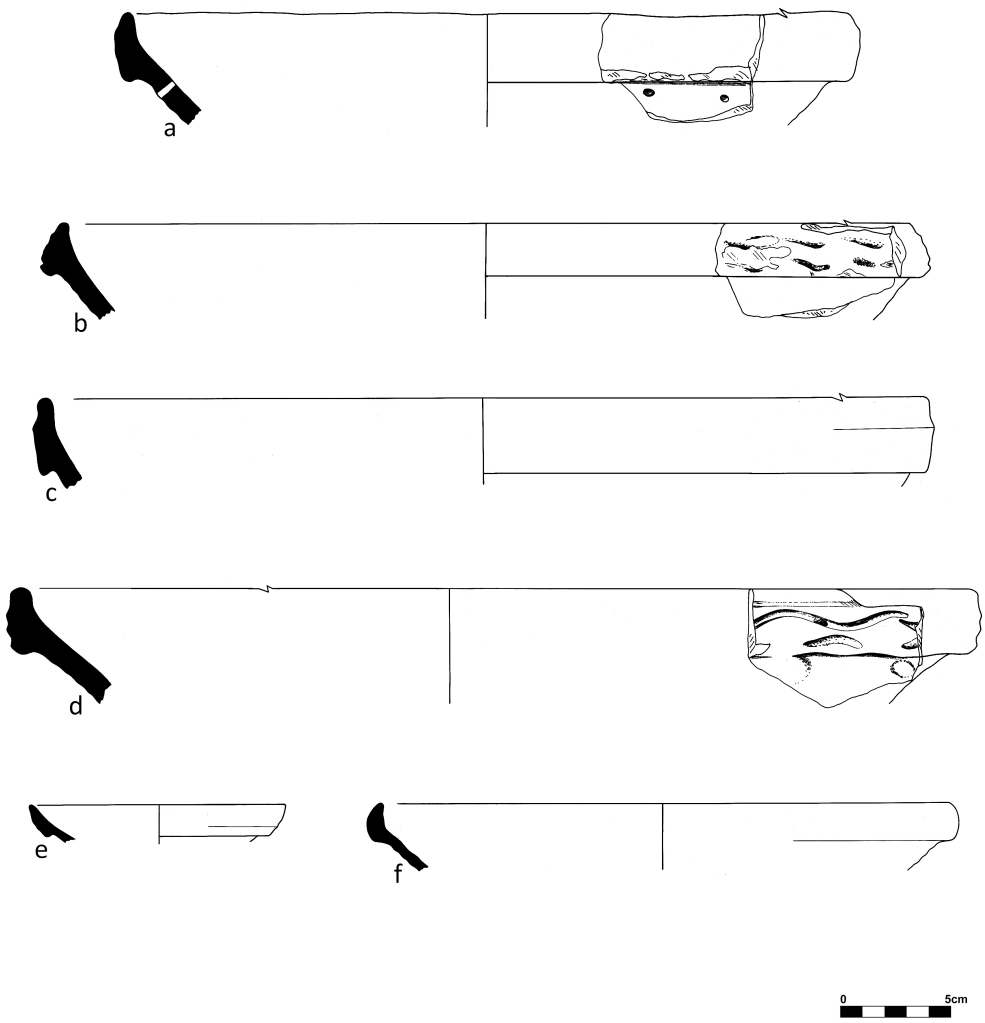
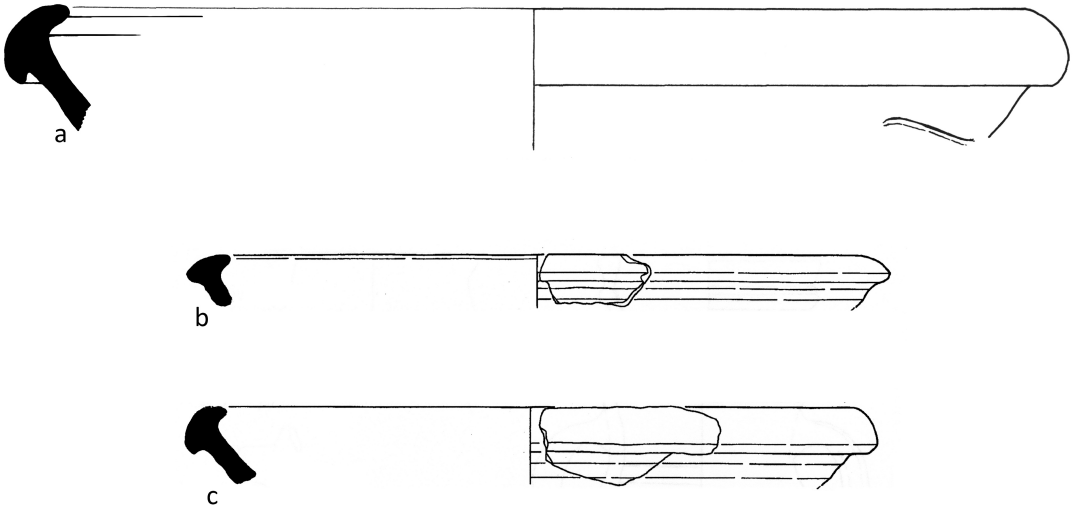


Figure 10 *a-f = TUR-OR14*

Figure 10						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-OR14	TURQ.T	Siraf		2007.6001,2074	1:3
b	TUR-OR14	TURQ.T	Siraf		2007.6001,465	1:3
c	TUR-OR14	TURQ.T	Siraf		2007.6001,2093	1:3
d	TUR-OR14	TURQ.T	Siraf		2007.6001,616	1:3
e	TUR-OR14	TURQ.T	Siraf		2007.6001,1260	1:3
f	TUR-OR14	TURQ.T	Siraf		2007.6001,1472	1:3

TUR-OR15 - TURQ.T



TUR-OR16 - TURQ.T

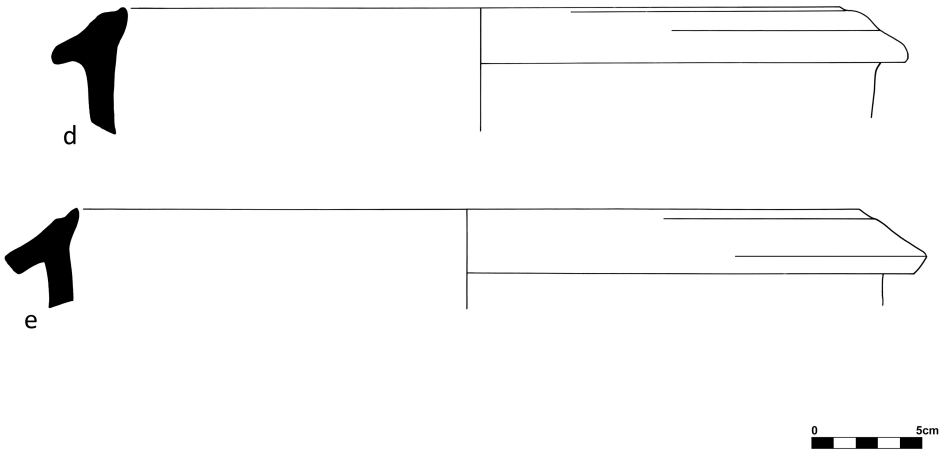


Figure 11 *a-c = TUR-OR15; d-e = TUR-OR16*

Figure 11						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-OR15	TURQ.T	Sohar	Kervran, 2004: fig. 14: 1	636.8	1:3
b	TUR-OR15	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 2000: fig. 10	JHU98-26	1:3
c	TUR-OR15	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 2000: fig. 10	JHU98-20 L.1	1:3
d	TUR-OR16	TURQ.T	Williamson/ B20E		18600	1:3
e	TUR-OR16	TURQ.T	Williamson/ H20P		3083	1:3

TUR-CR1 - TURQ.T

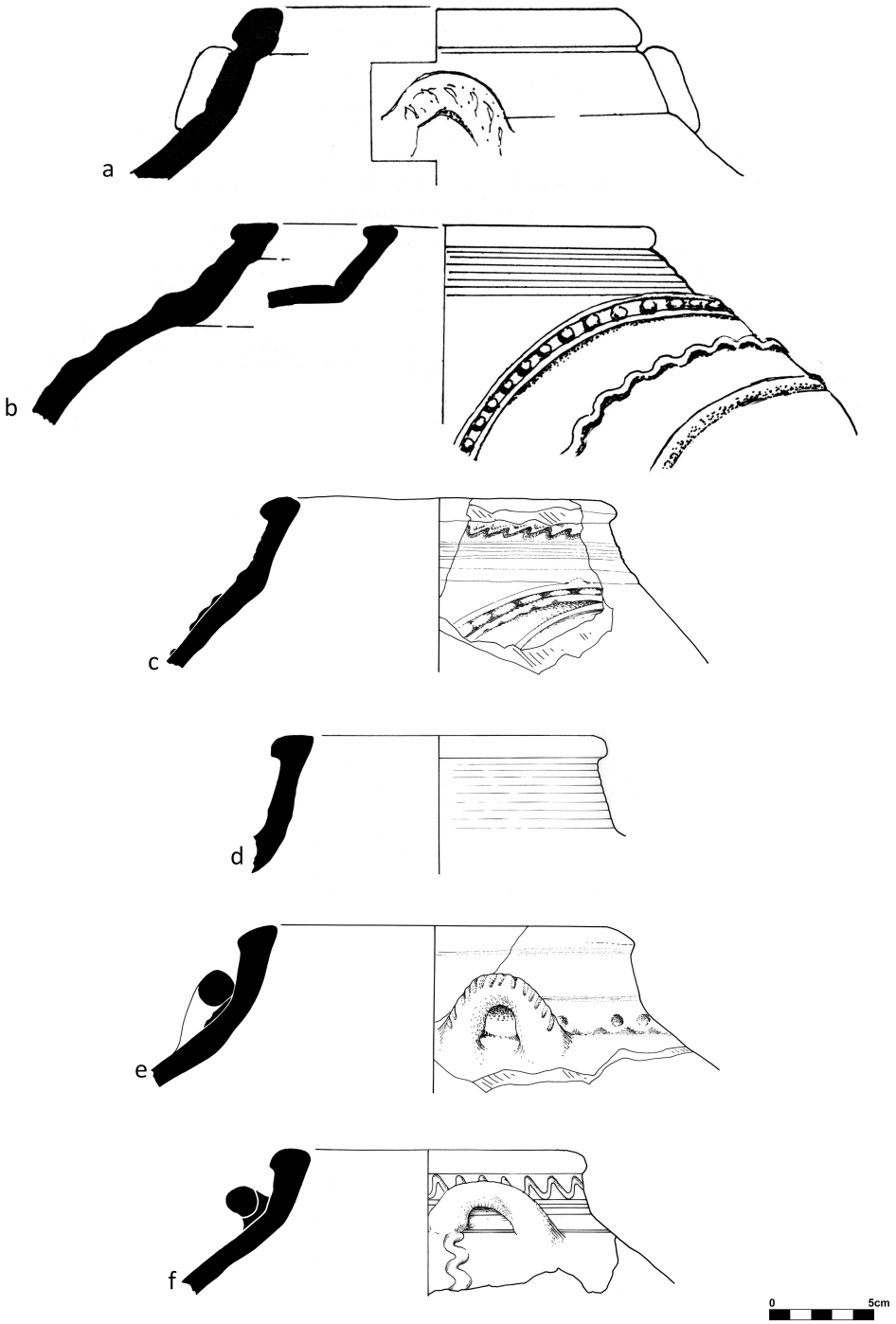


Figure 12 *a-f = TUR-CR1 (Type JR5: Priestman, 2016)*

Figure 12						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-CR1	TURQ.T	Sohar	Kervran, 2004: fig. 29: 1	1059.6	1:3
b.1	TUR-CR1	TURQ.T	Sohar	Kervran, 2004: fig. 34: 18	2201.6	1:3
b.2	TUR-CR1	TURQ.T	Sohar	Kervran, 2004: fig. 34: 19	2201.7	1:3
c	TUR-CR1	TURQ.T	Siraf		2007.6001,6685	1:3
d	TUR-CR1	TURQ.T	Unguja Ukuu		UU14/1443	1:3
e	TUR-CR1	TURQ.T	Siraf		2007.6001,7641	1:3
f	TUR-CR1	TURQ.T	Unguja Ukuu		UU14/1436	1:3

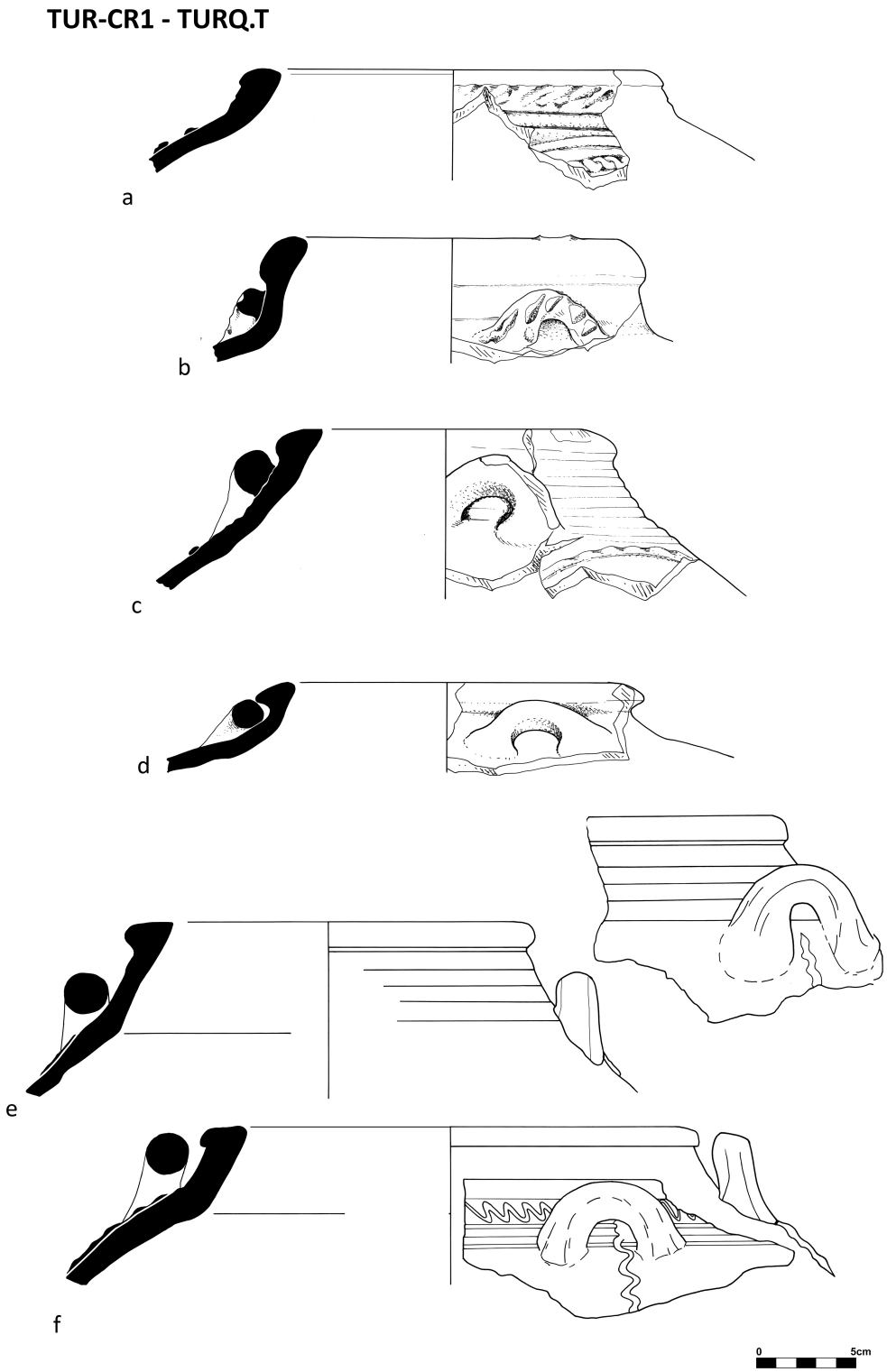


Figure 13 *a-f = TUR-CR1 (Type JR5: Priestman, 2016)*

Figure 13						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-CR1	TURQ.T	Siraf		2007.6001,8889	1:3
b	TUR-CR1	TURQ.T	Siraf		2007.6001,6304	1:3
c	TUR-CR1	TURQ.T	Siraf		2007.6001,6801	1:3
d	TUR-CR1	TURQ.T	Siraf		2007.6001,8002	1:3
e	TUR-CR1	TURQ.T	Williamson/ SS36		9007	1:3
f	TUR-CR1	TURQ.T	Williamson/ P1E		6341	1:3

TUR-CR1 - TURQ.T

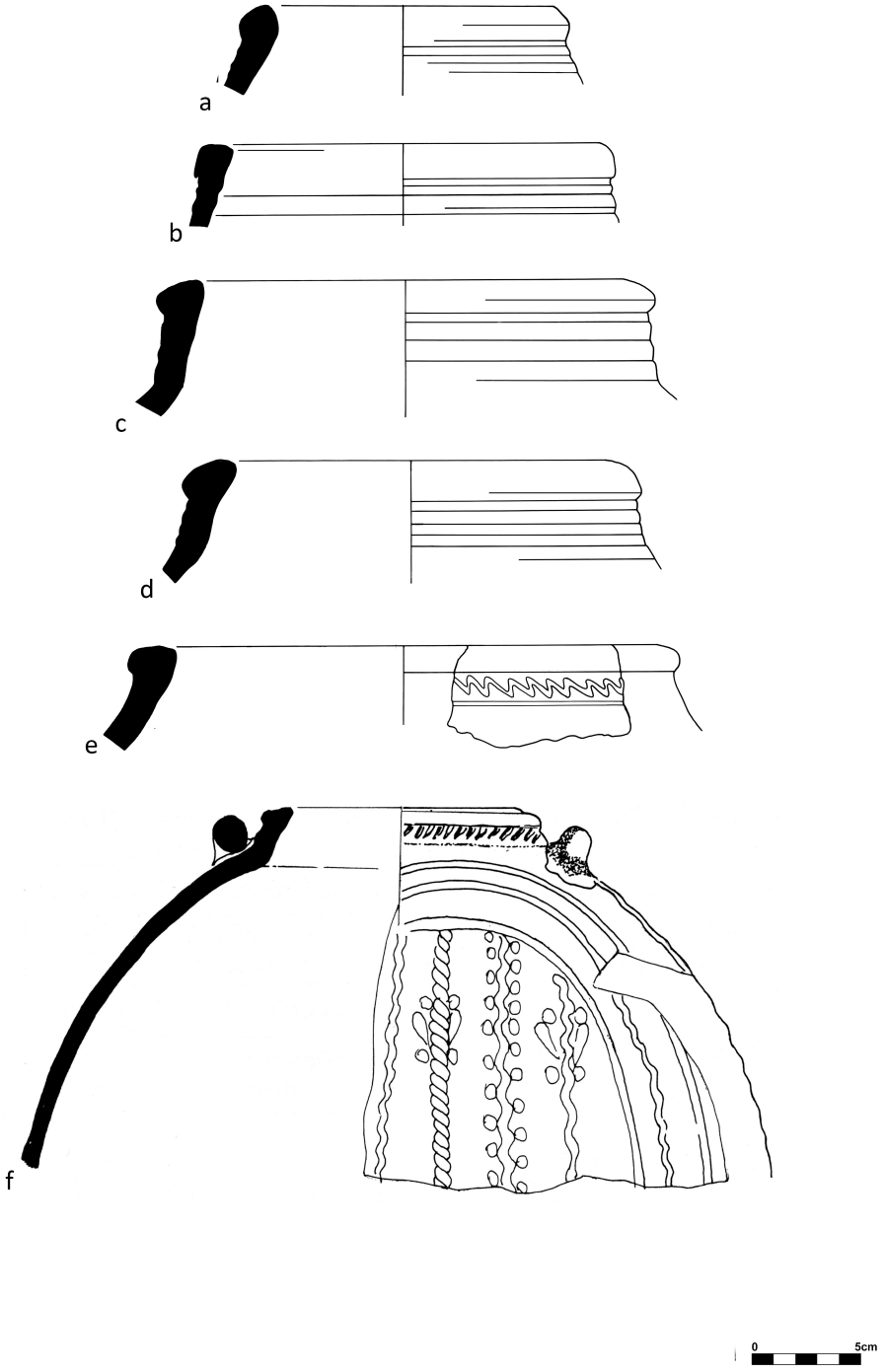


Figure 14 *a-f = TUR-CR1 (Type JR5: Priestman, 2016)*

Figure 14						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-CR1	TURQ.T	Williamson/ P1C		6160	1:3
b	TUR-CR1	TURQ.T	Williamson/ B20A		18596	1:3
c	TUR-CR1	TURQ.T	Williamson/ Q32		7172	1:3
d	TUR-CR1	TURQ.T	Williamson/ P1C		5915	1:3
e	TUR-CR1	TURQ.T	Williamson/ H20C		2879	1:3
f	TUR-CR1	TURQ.T	Sohar	Kervran, 2004: fig. 24: 1	1531.1	1:3

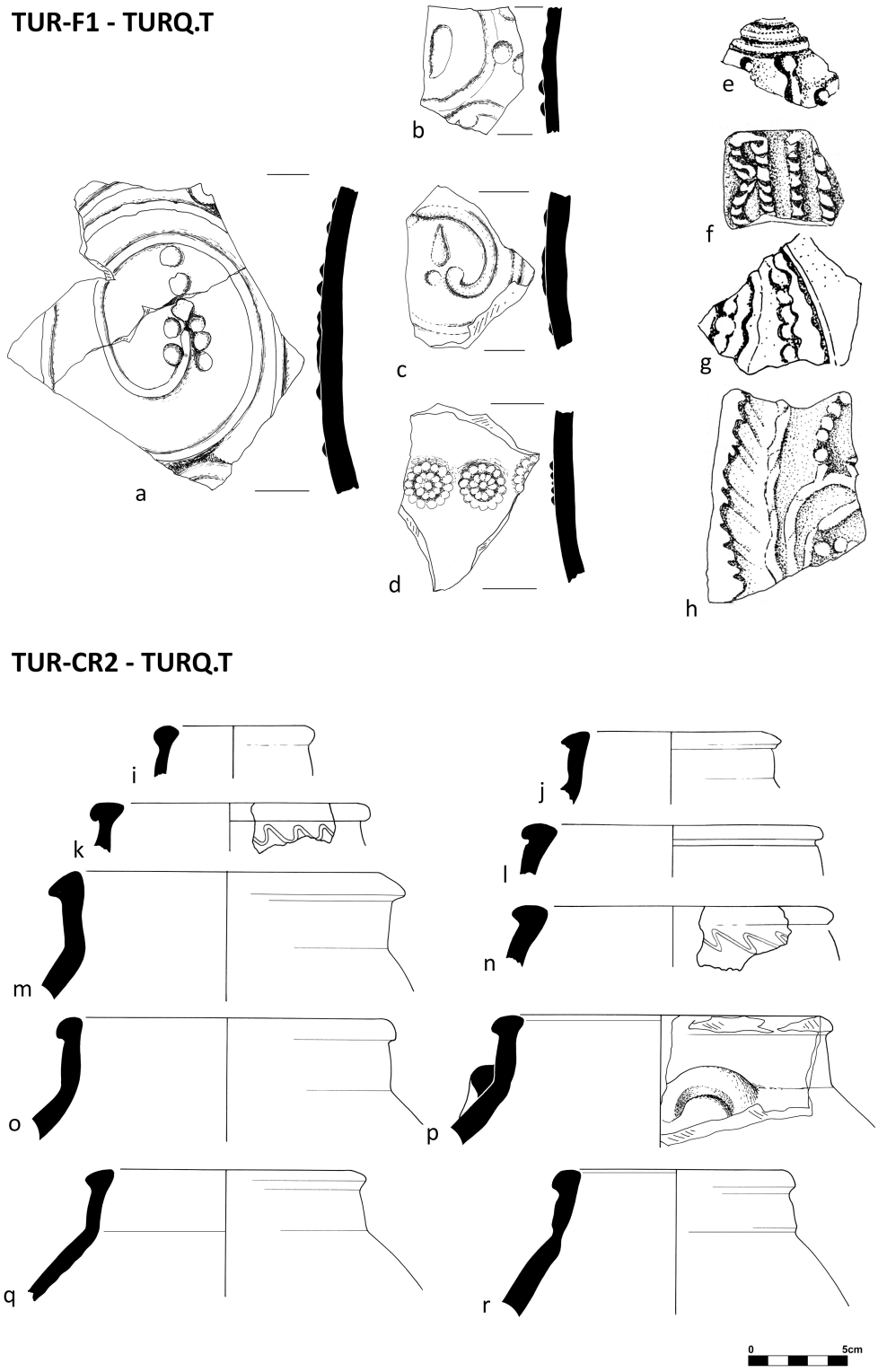
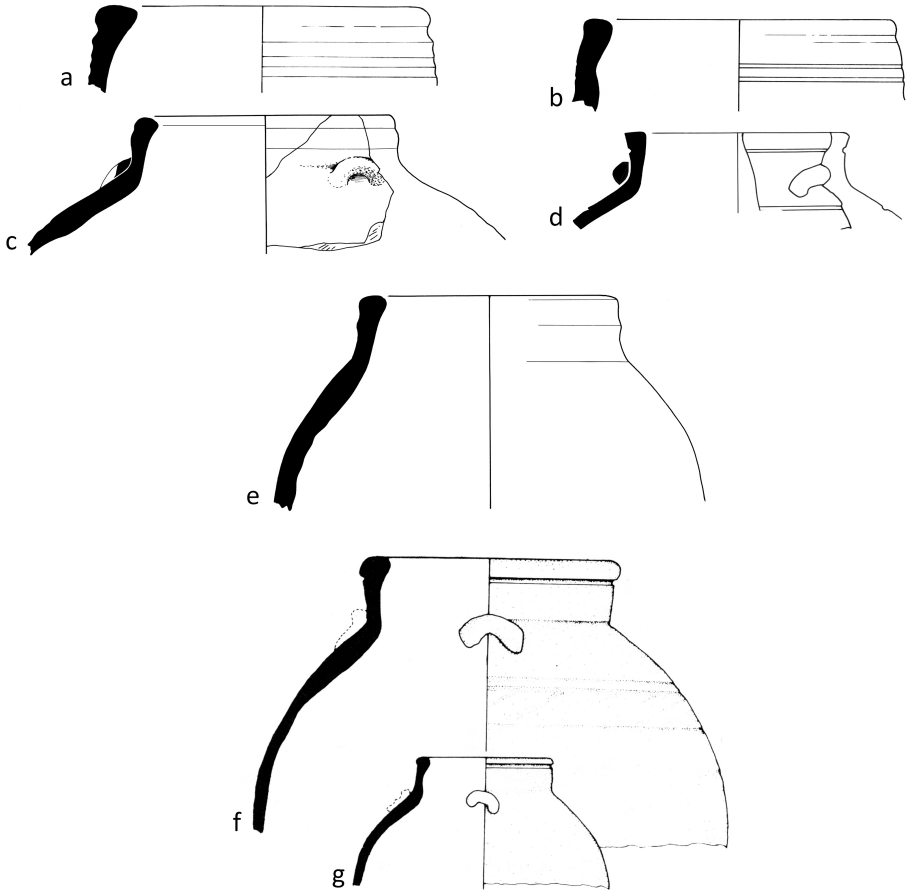


Figure 15 *a-h = TUR-F1 (OC2: Priestman, 2016); i-r = TUR-CR2*

Figure 15						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-F1	TURQ.T	Siraf		2007.6001,7660	1:3
b	TUR-F1	TURQ.T	Siraf		2007.6001,852	1:3
c	TUR-F1	TURQ.T	Siraf		2007.6001,1290	1:3
d	TUR-F1	TURQ.T	Siraf		2007.6001,1454	1:3
e	TUR-F1	TURQ.T	Sohar	Kervran, 2004: fig. 25: 3	1538.1	1:3
f	TUR-F1	TURQ.T	Sohar	Kervran, 2004: fig. 32: 4	2197.4	1:3
g	TUR-F1	TURQ.T	Sohar	Kervran, 2004: fig. 23 bis: 5	Unstratified	1:3
h	TUR-F1	TURQ.T	Sohar	Kervran, 2004: fig. 32: 5	2197.5	1:3
i	TUR-CR2	TURQ.T	Unguja Ukuu		UU14/1423P	1:3
j	TUR-CR2	TURQ.T	Unguja Ukuu		UU14/1408G	1:3
k	TUR-CR2	TURQ.T	Unguja Ukuu		UU14/1406	1:3
l	TUR-CR2	TURQ.T	Unguja Ukuu		UU14/1412H	1:3
m	TUR-CR2	TURQ.T	Siraf		2007.6001,6477	1:3
n	TUR-CR2	TURQ.T	Unguja Ukuu		UU14/1403C	1:3
o	TUR-CR2	TURQ.T	Siraf		2007.6001,800	1:3
p	TUR-CR2	TURQ.T	Siraf		2007.6001,719	1:3
q	TUR-CR2	TURQ.T	Siraf		2007.6001,7747	1:3
r	TUR-CR2	TURQ.T	Siraf		2007.6001,6305	1:3

TUR-CR3 - TURQ.T



TUR-CR4 - TURQ.T

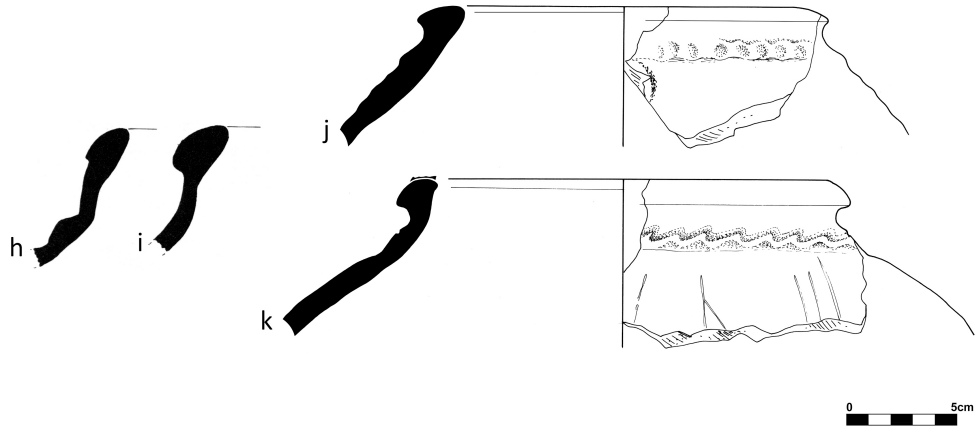
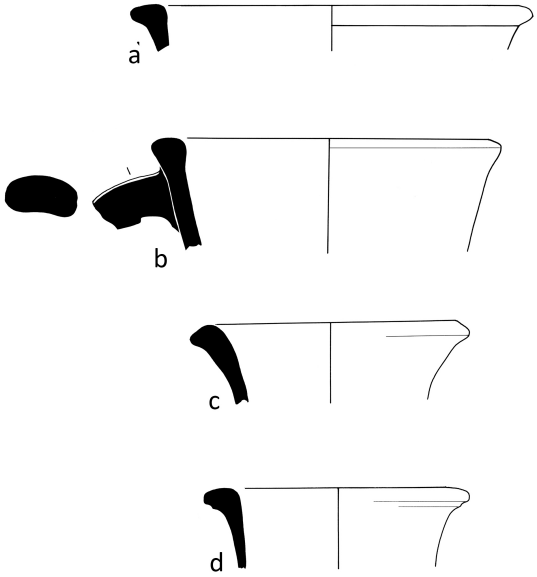


Figure 16 *a-g = TUR-CR3; h-k = TUR-CR4*

Figure 16						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-CR3	TURQ.T	Unguja Ukuu		UU14/1428	1:3
b	TUR-CR3	TURQ.T	Unguja Ukuu		UU14/1414J	1:3
c	TUR-CR3	TURQ.T	Siraf		2007.6001,7425	1:3
d	TUR-CR3	TURQ.T	Williamson/ K143		16615	1:3
e	TUR-CR3	TURQ.T	Siraf		2007.6001,6903	1:3
f	TUR-CR3	TURQ.T	Manda	Chittick, 1984: fig. 34: a		1:3
g	TUR-CR3	TURQ.T	Manda	Chittick, 1984: fig. 34: b		1:3
h	TUR-CR4	TURQ.T	Manda	Chittick, 1984: fig. 34: q		1:3
i	TUR-CR4	TURQ.T	Manda	Chittick, 1984: fig. 34: p		1:3
j	TUR-CR4	TURQ.T	Siraf		2007.6001,993	1:3
k	TUR-CR4	TURQ.T	Siraf		2007.6001,858	1:3

TUR-CR5 - TURQ.T



TUR-CR6 - TURQ.T

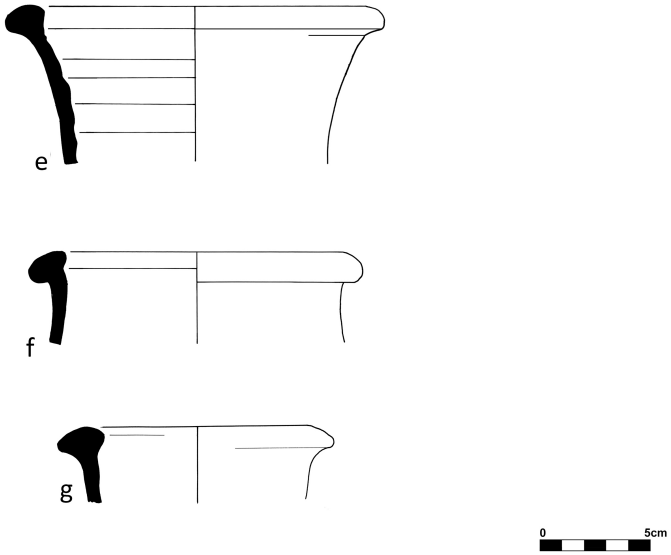


Figure 17 *a-d = TUR-CR5; e-g = TUR-CR6*

Figure 17						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-CR5	TURQ.T	Williamson/ AE3		16616	1:3
b	TUR-CR5	TURQ.T	Siraf		2007.6001,4461	1:3
c	TUR-CR5	TURQ.T	Siraf		2007.6001,3016	1:3
d	TUR-CR5	TURQ.T	Siraf		2007.6001,3024	1:3
e	TUR-CR6	TURQ.T	Williamson/ H94		2809	1:3
f	TUR-CR6	TURQ.T	Williamson/ AE4		253	1:3
g	TUR-CR6	TURQ.T	Siraf		2007.6001,3223	1:3

TUR-CR7 - TURQ.T

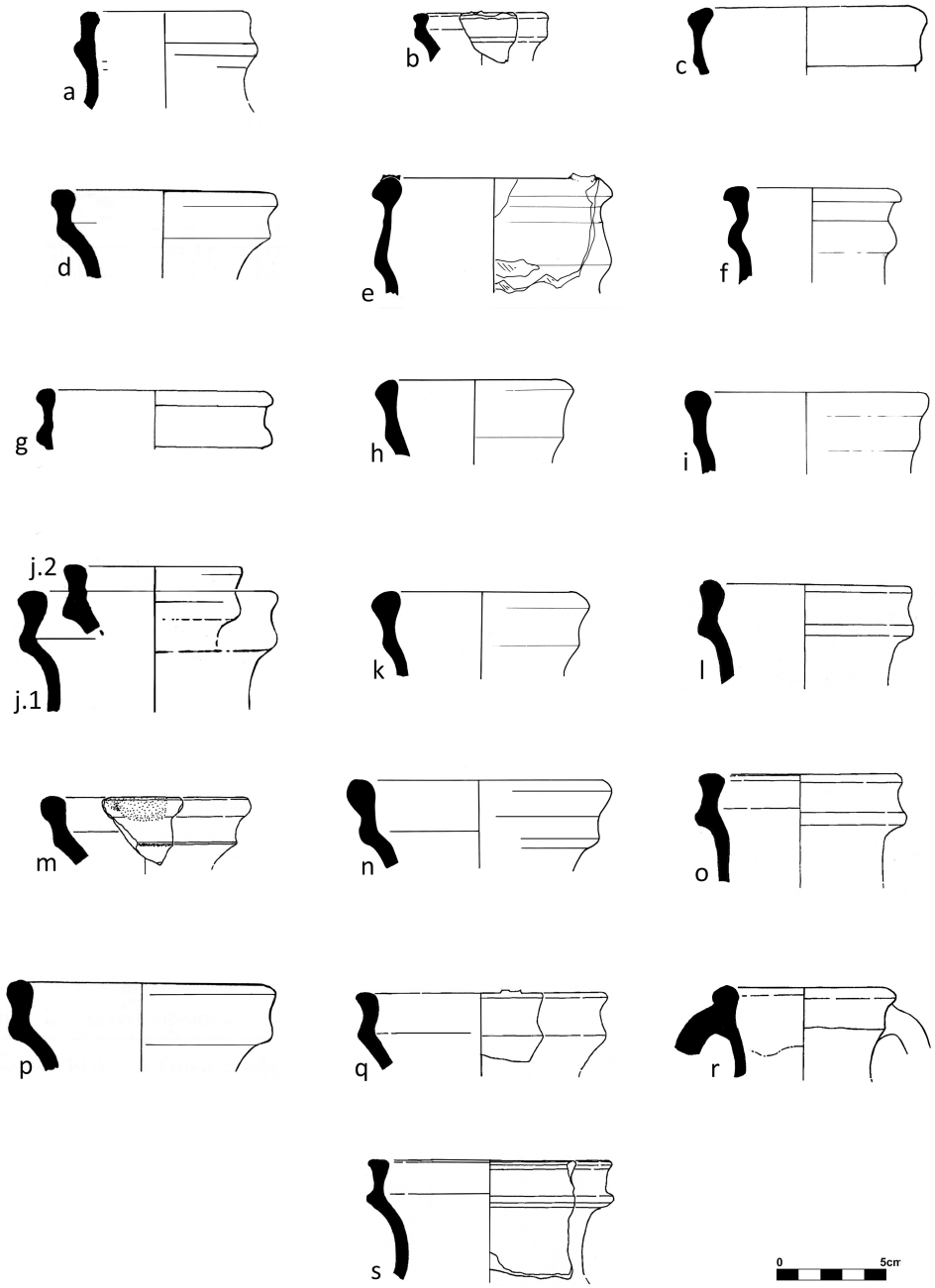


Figure 18 *a-s = TUR-CR7*

Figure 18						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-CR7	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 1996: fig.44	JHU95-8 L.1	1:3
b	TUR-CR7	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 1996: fig.44	JHU95-102 L.3	1:3
c	TUR-CR7	TURQ.T	Sohar	Kervran, 2004: fig. 22: 2	616.2	1:3
d	TUR-CR7	TURQ.T	Sohar	Kervran, 2004: fig. 12: 2	649.1	1:3
e	TUR-CR7	TURQ.T	Siraf		2007.6001,854	1:3
f	TUR-CR7	TURQ.T	Unguja Ukuu		UU14/1423N	1:3
g	TUR-CR7	TURQ.T	Sohar	Kervran, 2004: fig. 22: 1	616.3	1:3
h	TUR-CR7	TURQ.T	Siraf		2007.6001,1474	1:3
i	TUR-CR7	TURQ.T	Unguja Ukuu		UU14/1440	1:3
j.1	TUR-CR7	TURQ.T	Sohar	Kervran, 2004: fig. 9: 5	701.1	1:3
j.2	TUR-CR7	TURQ.T	Sohar	Kervran, 2004: fig. 9: 4	696.1	1:3
k	TUR-CR7	TURQ.T	Siraf		2007.6001,2160	1:3
l	TUR-CR7	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 1996: fig.44	JHU95-111 L.6	1:3
m	TUR-CR7	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 1996: fig.44	JHU95-96 L.3	1:3
n	TUR-CR7	TURQ.T	Williamson/ H		3104	1:3
o	TUR-CR7	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 1996: fig.44	JHU95-104 L.4	1:3
p	TUR-CR7	TURQ.T	Sohar	Kervran, 2004: fig. 12: 3	661.1	1:3
q	TUR-CR7	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 1996: fig.44	JHU95-7 L.1	1:3
r	TUR-CR7	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 2000: fig. 11	JHU98-24	1:3
s	TUR-CR7	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 1996: fig.44	JHU95-107 L.5	1:3

TUR-CR7 - TURQ.T

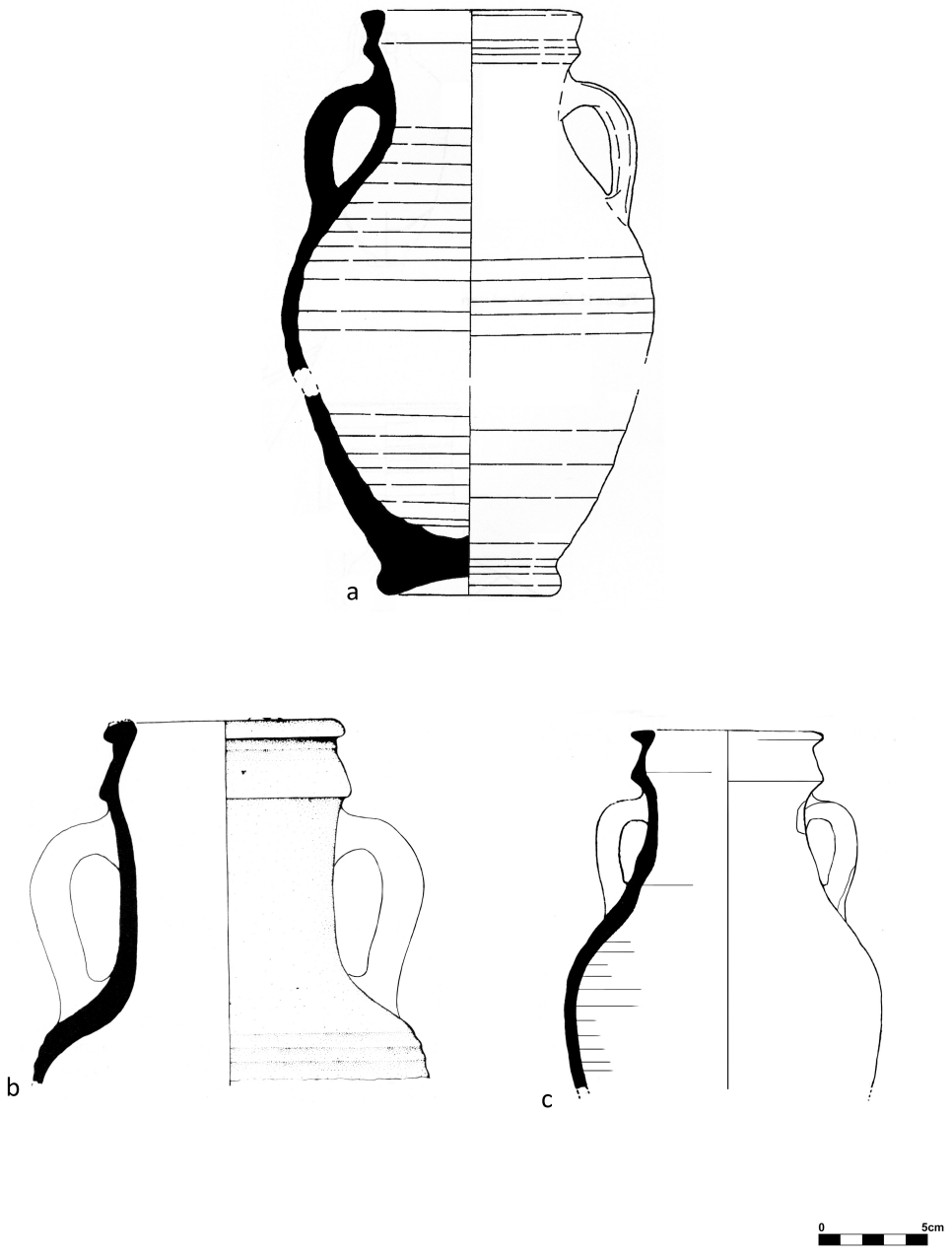
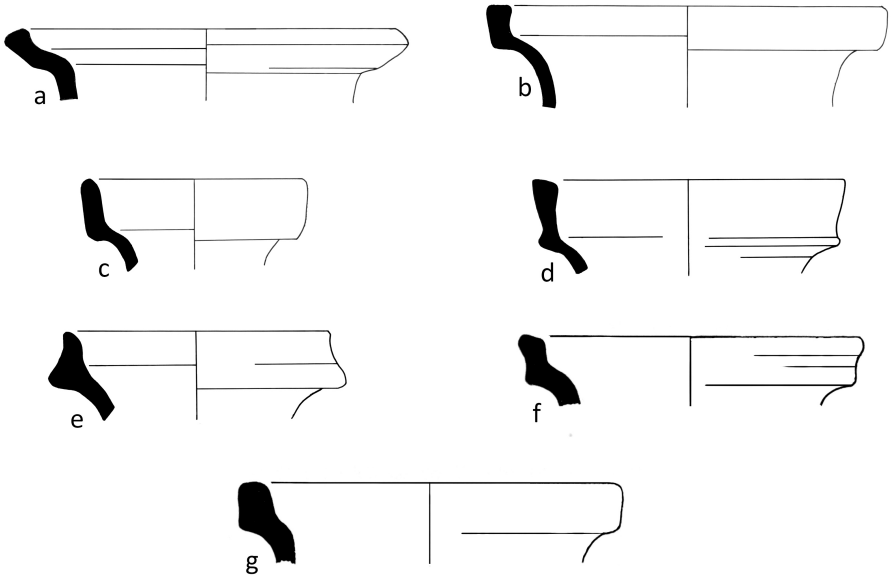


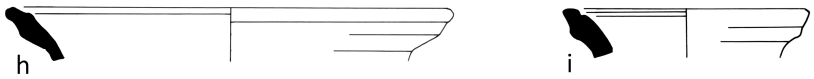
Figure 19 *a-c = TUR-CR7*

Figure 19						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-CR7	TURQ.T	Jazirat al-Hulaylah	Sasaki and Sasaki, 2000: fig. 11	JHU97-62	1:3
b	TUR-CR7	TURQ.T	Manda	Chittick, 1984: fig. 34: c		1:3
c	TUR-CR7	TURQ.T	Susa	Kervran,1977: fig. 25: 6	AP.E.74 633	1:3

TUR-CR8 - TURQ.T



TUR-CR9 - TURQ.T



TUR-CR10 - TURQ.T

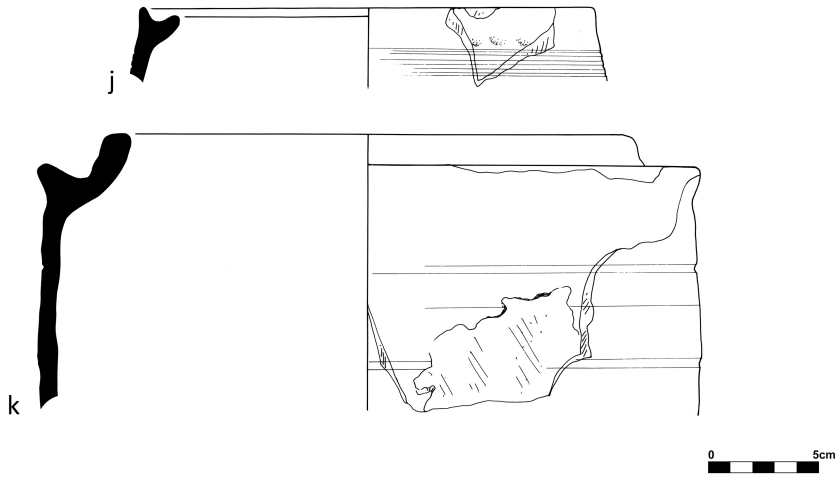
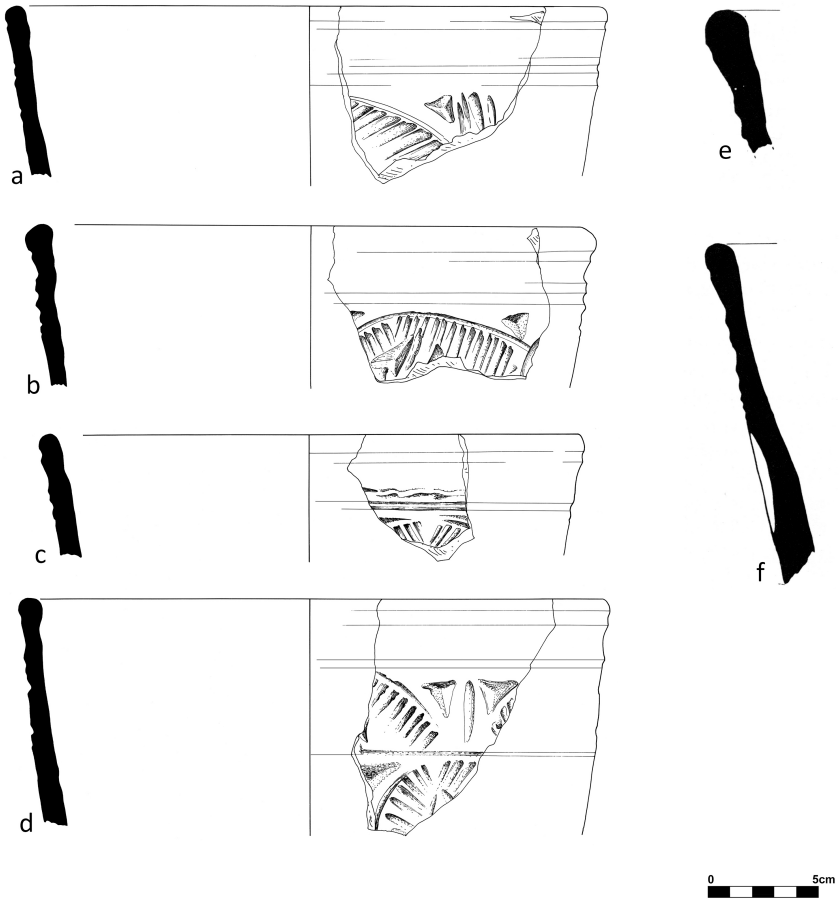


Figure 20 *a-g = TUR-CR8; h-i = TUR-CR9; j-k = TUR-CR10*

Figure 20						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-CR8	TURQ.T	Williamson/ D18A		3195	1:3
b	TUR-CR8	TURQ.T	Williamson/ H94		3024	1:3
c	TUR-CR8	TURQ.T	Williamson/ H41		3222	1:3
d	TUR-CR8	TURQ.T	Williamson/ H45		3095	1:3
e	TUR-CR8	TURQ.T	Williamson/ H26		3099	1:3
f	TUR-CR8	TURQ.T	Susa	Kervran, 1977: fig. 25: 4	AP.E.73 901.30	1:3
g	TUR-CR8	TURQ.T	Susa	Kervran, 1977: fig. 25: 3	AP.E.73 910.7	1:3
h	TUR-CR9	TURQ.T	Williamson/ H17D		3227	1:3
i	TUR-CR9	TURQ.T	Williamson/ QAN		7243	1:3
j	TUR-CR10	TURQ.T	Siraf		2007.6001,2760	1:3
k	TUR-CR10	TURQ.T	Siraf		2007.6001,2247	1:3

TUR-CR11 - TURQ.T



TUR-CR12 - TURQ.T

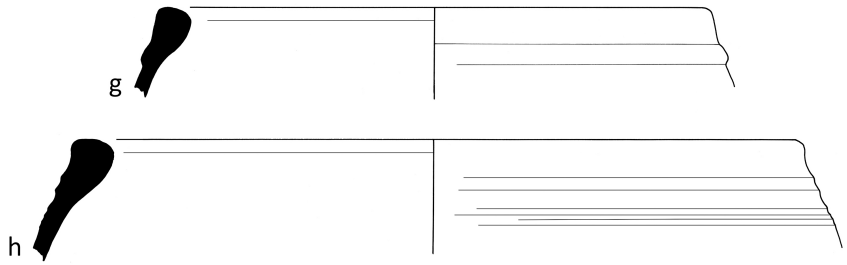


Figure 21 *a-f = TUR-CR11; g-h = TUR-CR12*

Figure 21						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-CR11	TURQ.T	Siraf		2007.6001,7908	1:3
b	TUR-CR11	TURQ.T	Siraf		2007.6001,2209	1:3
c	TUR-CR11	TURQ.T	Siraf		2007.6001,5776	1:3
d	TUR-CR11	TURQ.T	Siraf		2007.6001,6522	1:3
e	TUR-CR11	TURQ.T	Manda	Chittick, 1984: fig. 34: f		1:3
f	TUR-CR11	TURQ.T	Manda	Chittick, 1984: fig. 34: e		1:3
g	TUR-CR12	TURQ.T	Siraf		2007.6001,2158	1:3
h	TUR-CR12	TURQ.T	Siraf		2007.6001,7395	1:3

TUR-CR13 (Type 64) - TURQ.YG

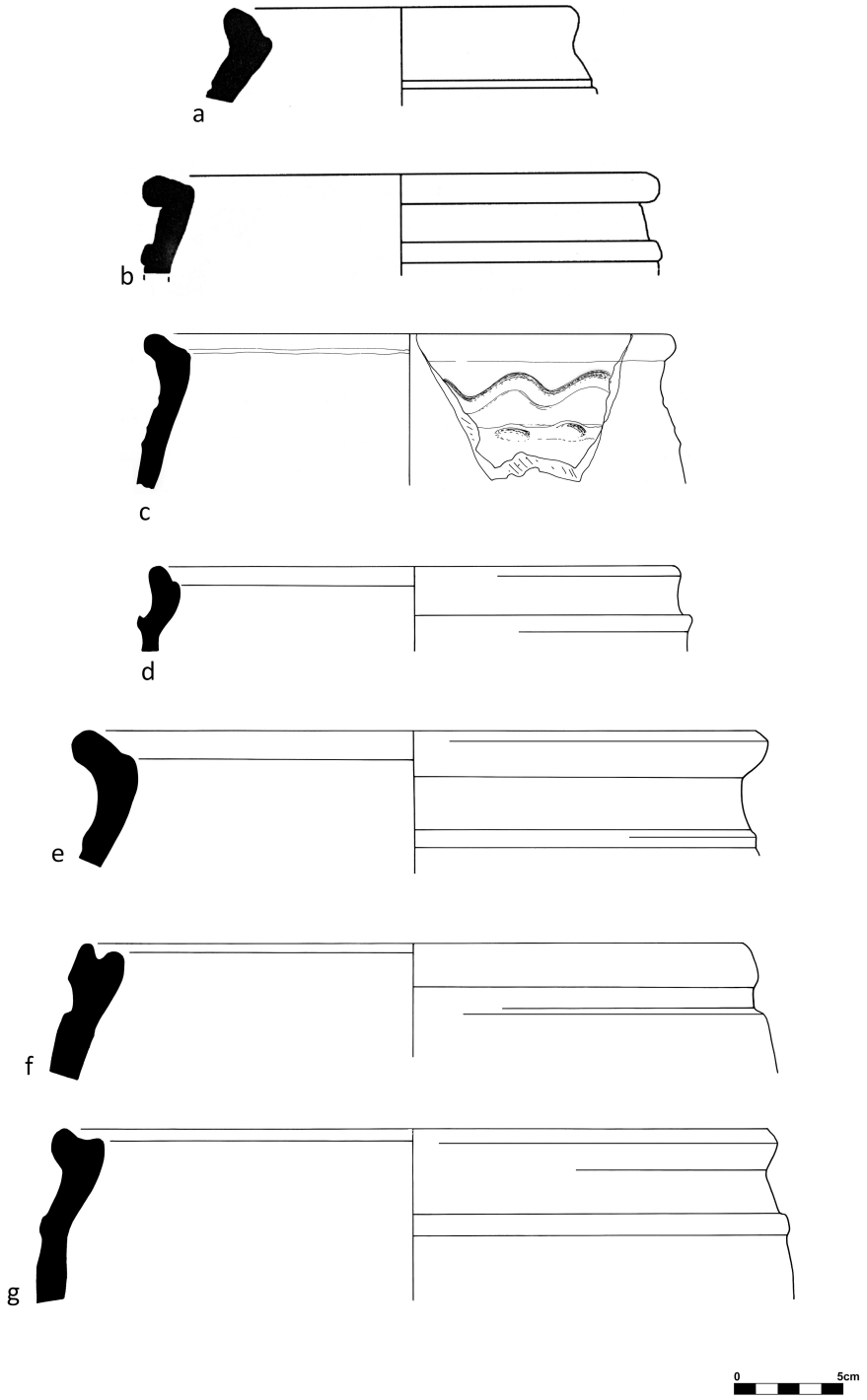


Figure 22 *a-g = TUR-CR13 (Type 64)*

Figure 22						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-CR13	TURQ.YG	Kush	Kennet, 2004: fig. 5	K3364	1:3
b	TUR-CR13	TURQ.YG	Kush	Kennet, 2004: fig. 5	K2306	1:3
c	TUR-CR13	TURQ.YG	Siraf		2007.6001,8217	1:3
d	TUR-CR13	TURQ.YG	Williamson/ D14C		3475	1:3
e	TUR-CR13	TURQ.YG	Williamson/ H40		3015	1:3
f	TUR-CR13	TURQ.YG	Williamson/ D14C		3474	1:3
g	TUR-CR13	TURQ.YG	Williamson/ H17D		3114	1:3

TUR-CR13 (Type 64) - TURQ.YG

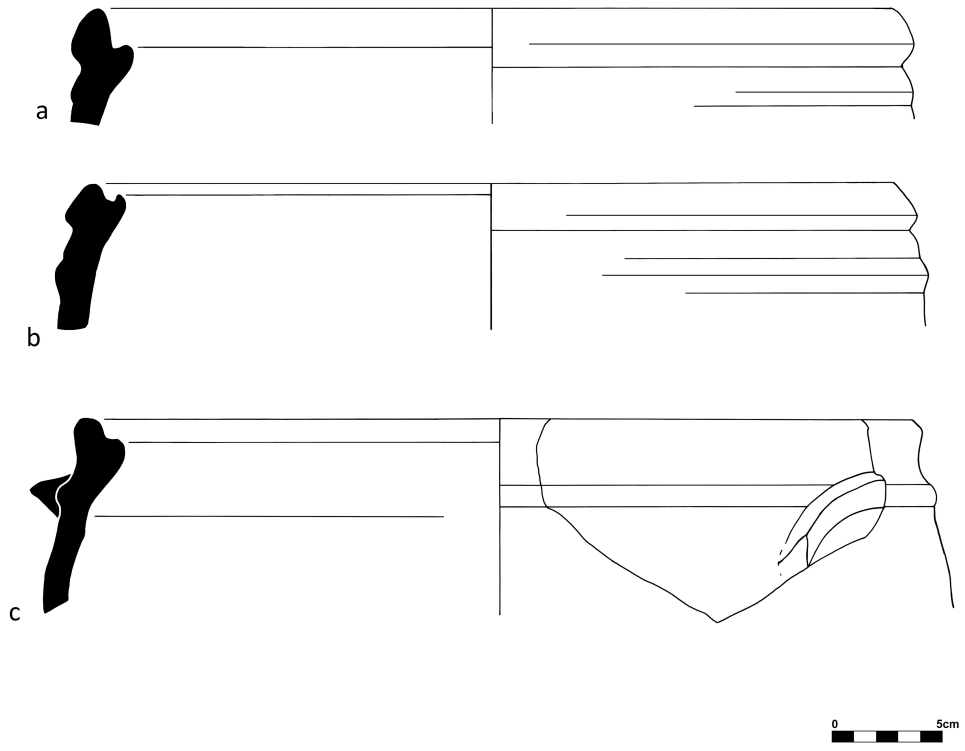
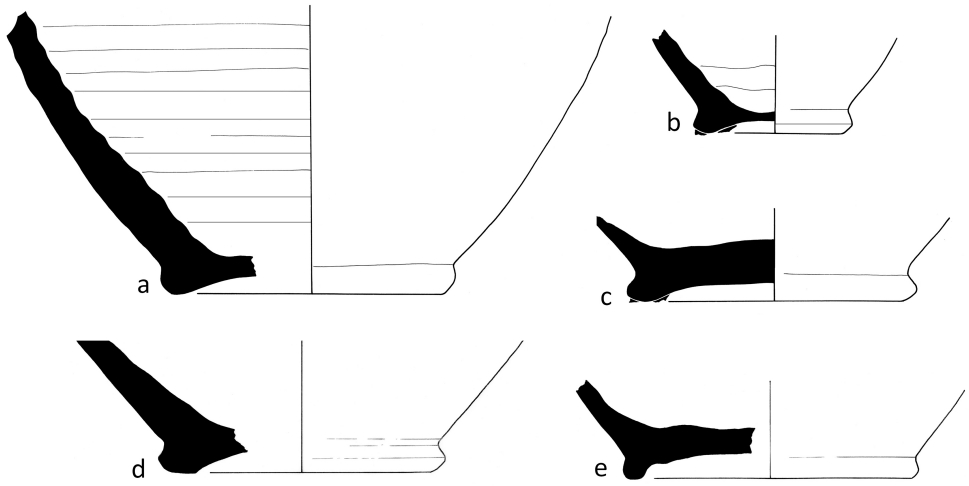


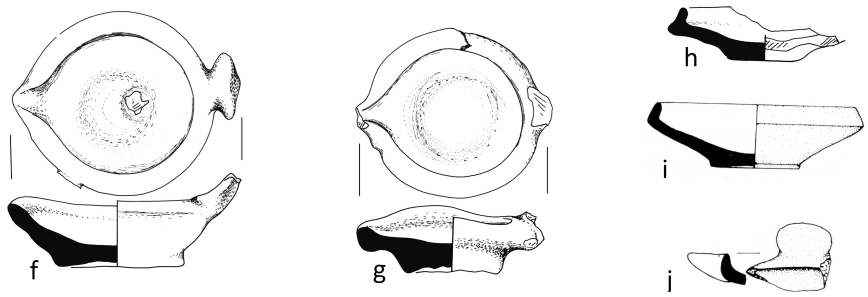
Figure 23 *a-c = TUR-CR13 (Type 64)*

Figure 23						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-CR13	TURQ.YG	Williamson/ D18B		3473	1:3
b	TUR-CR13	TURQ.YG	Williamson/ H13A		3116	1:3
c	TUR-CR13	TURQ.YG	Williamson/ H18A		3110	1:3

TUR-B1 - TURQ.T



TUR-OR17 - TURQ.T



TUR-F2 - TURQ.T

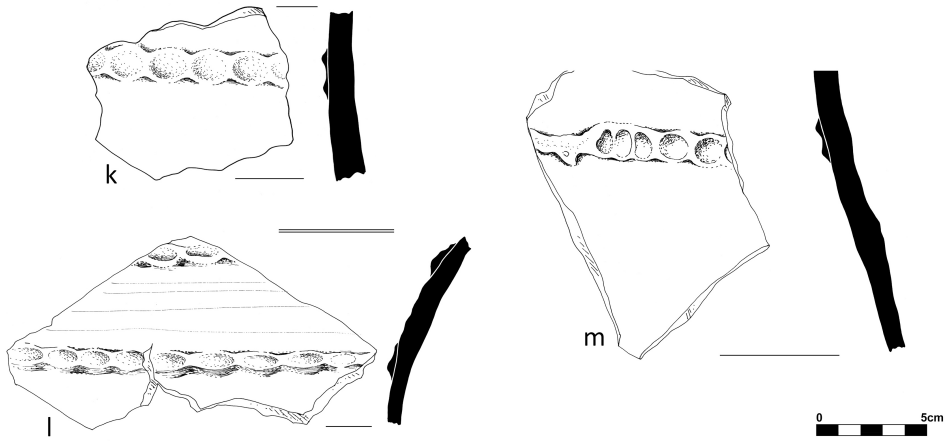


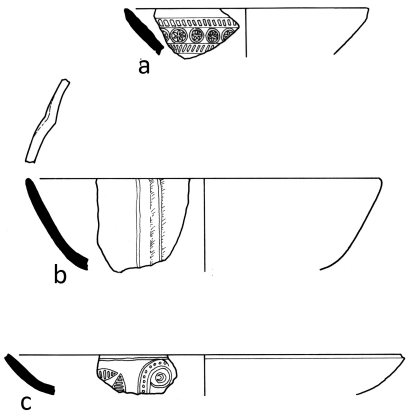
Figure 24 *a-e = TUR-B1; f-j = TUR-OR17 (Type 61); k-m = TUR-F2*

Figure 24						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TUR-B1	TURQ.T	Siraf		2007.6001,1548	1:3
b	TUR-B1	TURQ.T	Siraf		2007.6001,8188	1:3
c	TUR-B1	TURQ.T	Siraf		2007.6001,8734	1:3
d	TUR-B1	TURQ.T	Unguja Ukuu		UU14/1443	1:3
e	TUR-B1	TURQ.T	Unguja Ukuu		UU14/1404E	1:3
f	TUR-OR17	TURQ.T	Siraf		2007.6001,267	1:3
g	TUR-OR17	TURQ.T	Siraf		2007.6001,6517	1:3
h	TUR-OR17	TURQ.T	Siraf		2007.6001,2913	1:3
i	TUR-OR17	TURQ.T	Manda	Chittick, 1984: fig. 36: f		1:3
j	TUR-OR17	TURQ.T	Manda	Chittick, 1984: fig. 36: h		1:3
k	TUR-F2	TURQ.T	Siraf		2007.6001,415	1:3
l	TUR-F2	TURQ.T	Siraf		2007.6001,746	1:3
m	TUR-F2	TURQ.T	Siraf		2007.6001,8735	1:3

GLM – Glazed Moulded Wares

Type	Form	Class(es)	Illustration	Concordance	Description
GLM-OR1	Dish	GLAMO.Y	Fig. 25: a-c		Small dish with a simple rounded lip that can be straight or foliated
GLM-OR2	Bowl	GLAMO.Y	Fig. d-e		Small, upright sided bowl

GLM-OR1 - GLAMO.Y



GLM-OR2 - GLAMO.Y

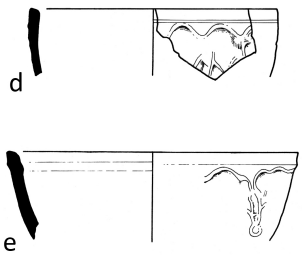


Figure 25 *a-c = GLM-OR1; d-e = GLM-OR2*

Figure 25						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GLM-OR1	GLAMO.Y	Siraf		2007.6001,8043	1:3
b	GLM-OR1	GLAMO.Y	Siraf		2007.6001,8303	1:3
c	GLM-OR1	GLAMO.Y	Siraf		2007.6001,8386	1:3
d	GLM-OR2	GLAMO.Y	Siraf		2007.6001,4437	1:3
e	GLM-OR2	GLAMO.Y	Siraf		2007.6001,1177	1:3

SAM – Samarra Horizon Glazed Wares

Type	Form	Class(es)	Illustration	Concordance	Description
SAM-OR1	Bowl	OPAQ#, SPLASH#, GRAF.E#	Figs. 26-27		Gently everted lip
SAM-OR2	Bowl	OPAQ#, GRAF.E#	Figs. 28-31	Kennet, 2004: Type 46	Gently everted, rounded lip
SAM-OR3	Bowl	OPAQ#	Fig. 32		Small bowl with an everted lip
SAM-OR4	Bowl	SPLASH#, GRAF.E#	Fig. 33		Straight-sided conical bowl
SAM-OR5	Bowl	OPAQ#	Figs. 34-35		Hemispherical bowl, simple rounded lip
SAM-OR6	Bowl	OPAQ#	Fig. 36: a-d		Lobed-rim bowl
SAM-OR7	Bowl	OPAQ#, GRAF.E#	Fig. 36: e-n		Carinated bowl with a pointed lip
SAM-OR8	Bowl	OPAQ#	Fig. 37: a-c		Short angled flange lip
SAM-OR9	Bowl	OPAQ#	Fig. 37: d-f		Closed or straight-sided bowl, rounded lip
SAM-OR10	Bowl	OPAQ.WC	Fig. 37: g-h		Triangular section rim and a sharp external lip
SAM-OR11	Bowl	OPAQ#	Fig. 38: a-d		Straight-sided vessel with a rolled rim, a rib around the shoulder and a low carination
SAM-OR12	Bowl	OPAQ#	Fig. 38: e-k		Closed or straight-sided bowl with an everted lip
SAM-OR13	Dish	GRAF.EP#, SPLASH#	Fig. 39: a-c		Flange-rimmed dish with a long, angled flange section
SAM-OR14	Bowl	SPLASH#	Fig. 39: d		Short angled lip
SAM-OR15	Dish	OPAQ#	Figs. 40; 41: a-f		Flat-bottomed dish with an everted flange rim
SAM-OR16	Candle stick	OPAQ#	Fig. 41: g-i		Similar form to SAM-OR16 but with a cone shaped attachment in the centre for a ?candle
SAM-OR17	Bowl	OPAQ#	Fig. 42: a-b		Straight-sided vessel with short sides and a flat base
SAM-OR18	Dish	OPAQ#	Fig. 42: c-g		Flat-bottomed dish similar to SAM-OR17 but wider
SAM-OR19	Bowl	OPAQ#, GRAF.E#	Not illustrated		Similar to SAM-OR1 but with straight rather than curving sides
SAM-OR19	Dish lamp	OPAQ#, SPLASH#	Fig. 50: a-p	Kennet, 2004: Type 61	Dish lamp with an applied, flat-topped handle and a pulled spout. Same form as TUR-OR16 but with opaque or splashed glaze
SAM-OR20	Vessel	OPAQ#	Fig. 50: q-r		Small, straight-sided, open vessel with a flared pedestal foot
SAM-B1	Bowl	OPAQ#, SPLASH#, GRAF.E#,	Figs. 43; 44: a-d		Squared foot ring
SAM-B2	Bowl	OPAQ#	Fig. 44: e-h		Squared, internally chamfered foot ring

Type	Form	Class(es)	Illustration	Concordance	Description
SAM-B3	Bowl	OPAQ#, SPLASH#, GRAF.E#	Fig. 45		Squared foot ring with a stepped interior
SAM-B4	Bowl	OPAQ#	Fig. 46: a-d		Squared foot ring with a narrow circumference
SAM-B5	Bowl	OPAQ#	Fig. 46: e-f		Small vessel with a squared foot ring and a sharply angled flange (not a proper type)
SAM-B6	Bowl	OPAQ#	Fig. 46: g-i		Bi-disc base, flat turned root ring, with a concave depression in the centre
SAM-B7	Bowl	SPLASH#,	Fig. 46: j-k		Low pointed foot ring, with a turned depression inside the foot, and a concave centre
SAM-B8	Bowl	SPLASH#, OPAQ#	Fig. 47: a-e		Flat pedestal base, with a turned concave centre
SAM-B9	Bowl	OPAQ#	Fig. 47: f-i		Low squared, or rounded, foot ring associated with straight-sided bowls with a low carination
SAM-CR1	Jar	OPAQ#	Fig. 48: a-d		Everted-rim jar with strap handles attached to the shoulder
SAM-CR2	Jar	OPAQ#	Fig. 48: e-j		Straight-necked jar with a rounded lip
SAM-CR3	Jar	OPAQ#	Fig. 49: a-b		Straight-necked jar with a thickened rounded lip and a raised collar below
SAM-CR4	Jar	SPLASH#	Fig. 49: c-d		Flared-rim jar with a simple pointed lip
SAM-CR5	Jar	SPLASH#	Fig. 49: e-g		Everted-rim jar with a raised cordon around the shoulder
SAM-B10	Jar	SPLASH#	Not illustrated		Flat base
SAM-F1	Dish	OPAQ#	Not illustrated		Body sherds associated with SAM-OR15

SAM-OR1 - OPAQ#, SPLASH#

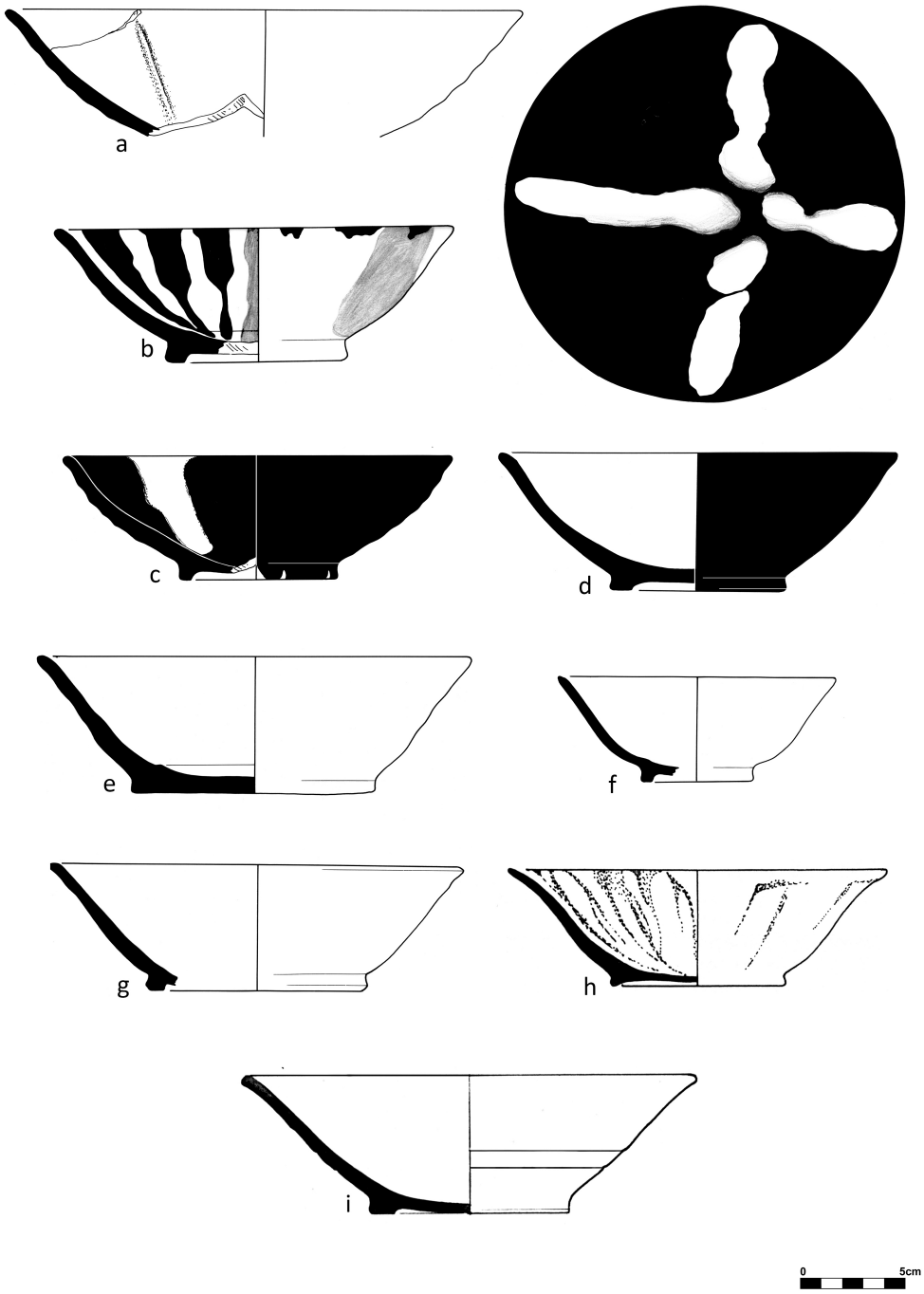


Figure 26 *a-i = SAM-OR1*

Figure 26						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR1	OPAQ#	Siraf		2007.6001,7408	1:3
b	SAM-OR1	OPAQ#	Siraf		2007.6001,7077	1:3
c	SAM-OR1	OPAQ#	Siraf		2007.6001,7095	1:3
d	SAM-OR1	OPAQ#	Siraf		2007.6001,7669	1:3
e	SAM-OR1	OPAQ#	Siraf		2007.6001,5371	1:3
f	SAM-OR1	OPAQ#	Siraf		2007.6001,6656	1:3
g	SAM-OR1	OPAQ#	Siraf		2007.6001,7867	1:3
h	SAM-OR1	SPLASH#	Susa	Kervran, 1977: fig. 42: 7	AP.73 265.4	1:3
i	SAM-OR1	OPAQ#	Susa	Kervran, 1977: fig. 46: 1	AP.74 572.12	1:3

SAM-OR1 - OPAQ#, SPLASH#, GRAF.E#

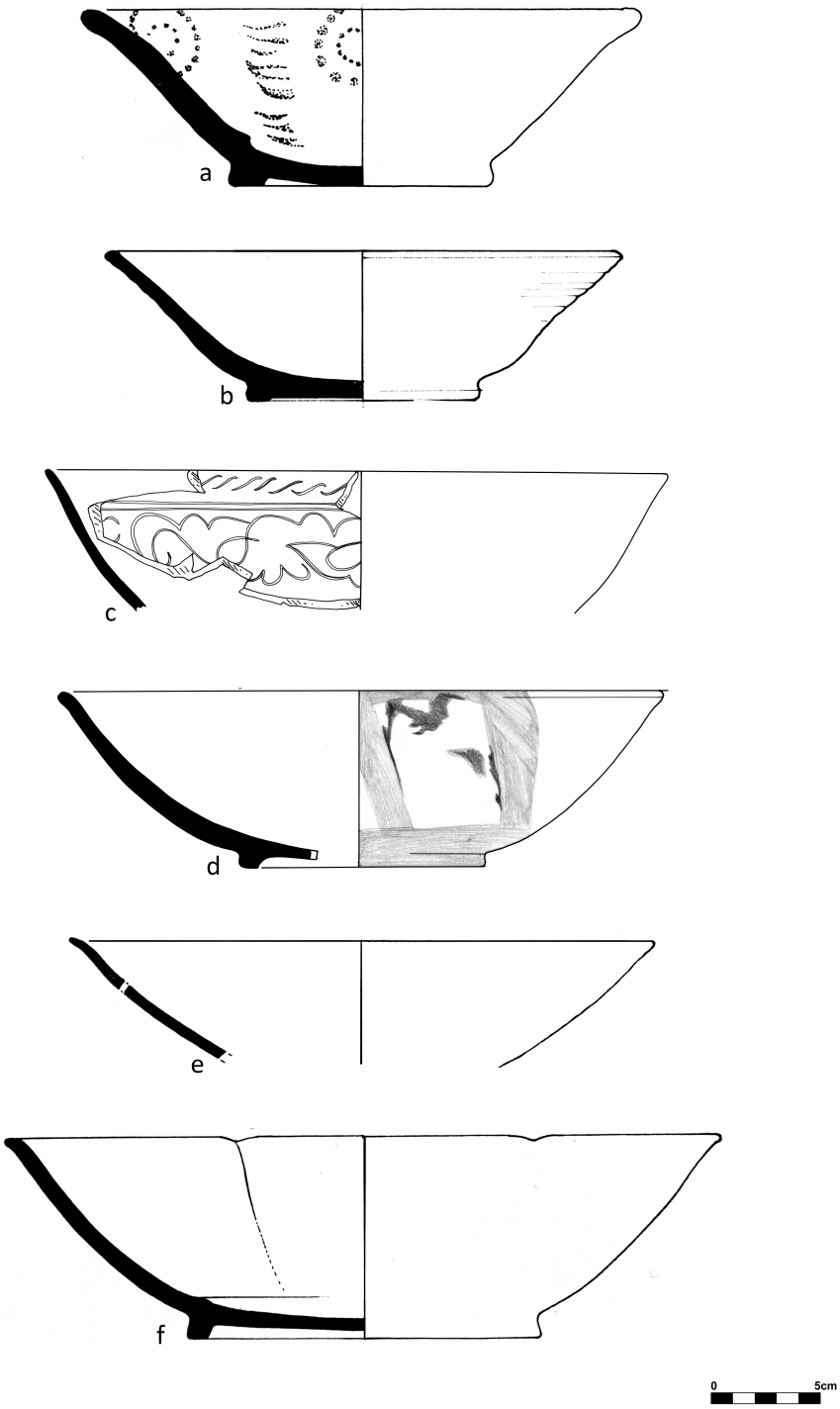


Figure 27 *a-f = SAM-OR1*

Figure 27						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR1	SPLASH#	Susa	Kervran, 1977: fig. 42: 8	AP.VR.75 5279	1:3
b	SAM-OR1	OPAQ#	Susa	Kervran, 1977: fig. 46: 5	AP.74 572.1	1:3
c	SAM-OR1	GRAF.E#	Siraf		2007.6001,6869	1:3
d	SAM-OR1	SPLASH#	Siraf		2007.6001,6469	1:3
e	SAM-OR1	GRAF.E#	Susa	Kervran, 1977: fig. 44: 3	AP.VR. 76 5109.8	1:3
f	SAM-OR1	OPAQ#	Susa	Kervran, 1977: fig. 45: 2	AP.74 597.1	1:3

SAM-OR2 (Type 46) - OPAQ#

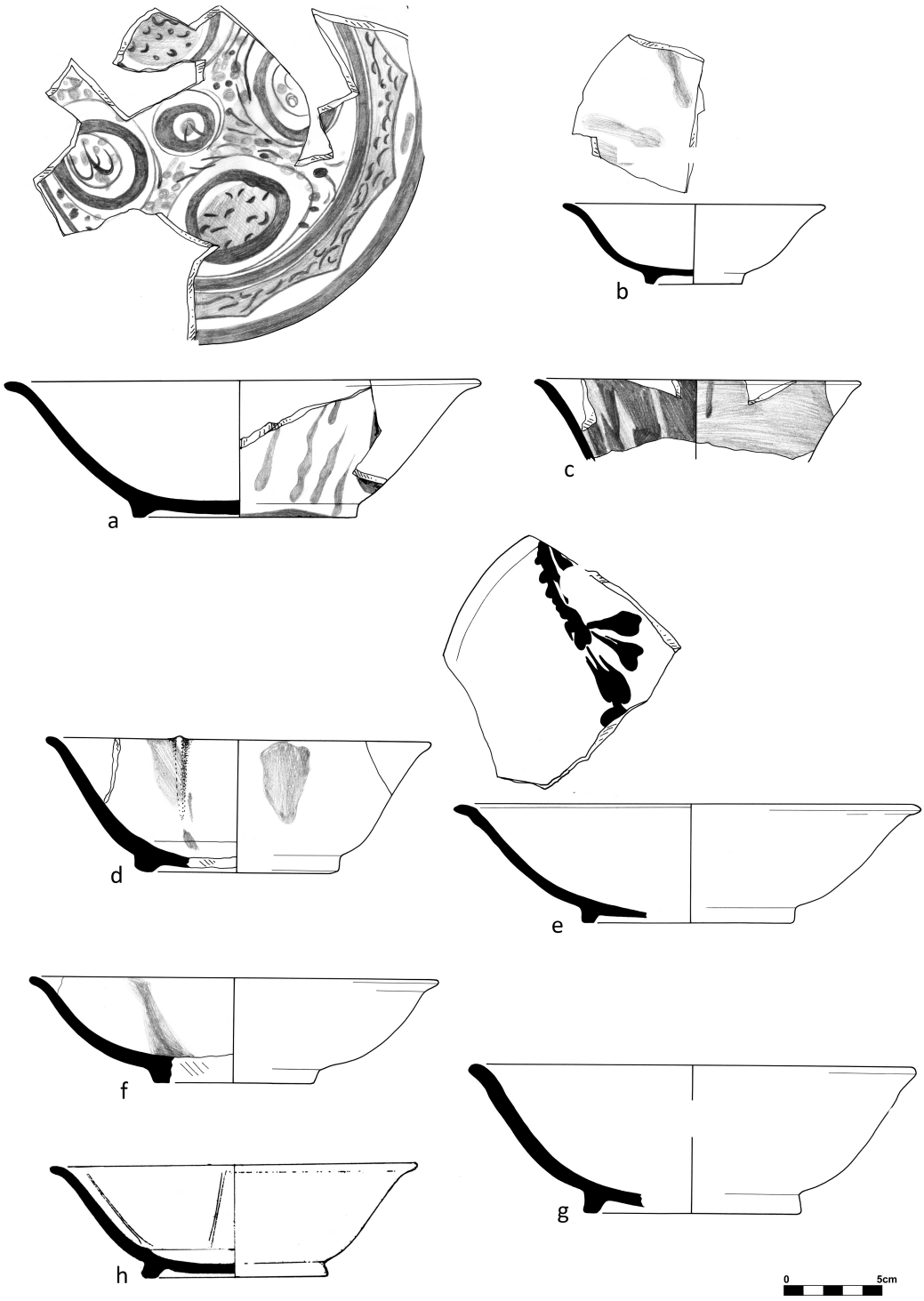


Figure 28 *a-h = SAM-OR2 (Type 46)*

Figure 28						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR2	OPAQ#	Siraf		2007.6001,9842	1:3
b	SAM-OR2	OPAQ#	Siraf		2007.6001,6354	1:3
c	SAM-OR2	OPAQ#	Siraf		2007.6001,725	1:3
d	SAM-OR2	OPAQ#	Siraf		2007.6001,7738	1:3
e	SAM-OR2	OPAQ#	Siraf		2007.6001,6937	1:3
f	SAM-OR2	OPAQ#	Siraf		2007.6001,3132	1:3
g	SAM-OR2	OPAQ#	Siraf		2007.6001,3069	1:3
h	SAM-OR2	OPAQ#	Sohar	Kervran, 2004: fig. 35: 16	1148.3	1:3

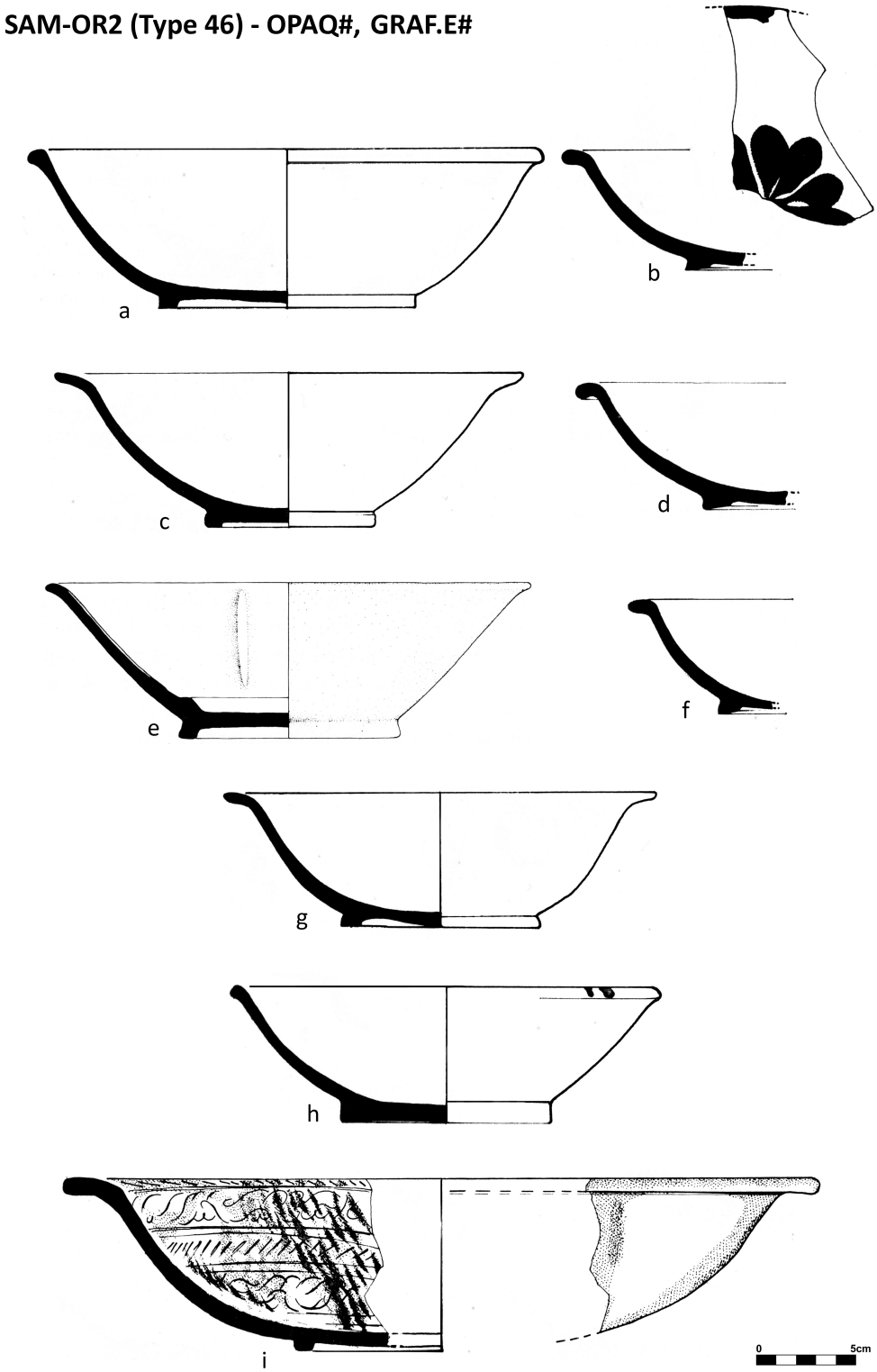


Figure 29 *a-i = SAM-OR2 (Type 46)*

Figure 29						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 39: 1	AP.74 631.1	1:3
b	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 37: 2	AP.E.74 1499.1	1:3
c	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 40: 1	AP.73 388.2	1:3
d	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 37: 1	AP.74 648.1	1:3
e	SAM-OR2	OPAQ#	Manda	Chittick, 1984: fig. 36: a		1:3
f	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 38: 1	AP.74 633.12	1:3
g	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 39: 2	AP.E.73 1244.14	1:3
h	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 45: 7	AP.74 529.2	1:3
i	SAM-OR2	GRAF.E#	Susa	Kervran, 1977: fig. 44: 7	AP.73.74 917.2, 1297.2	1:3

SAM-OR2 (Type 46) - OPAQ#

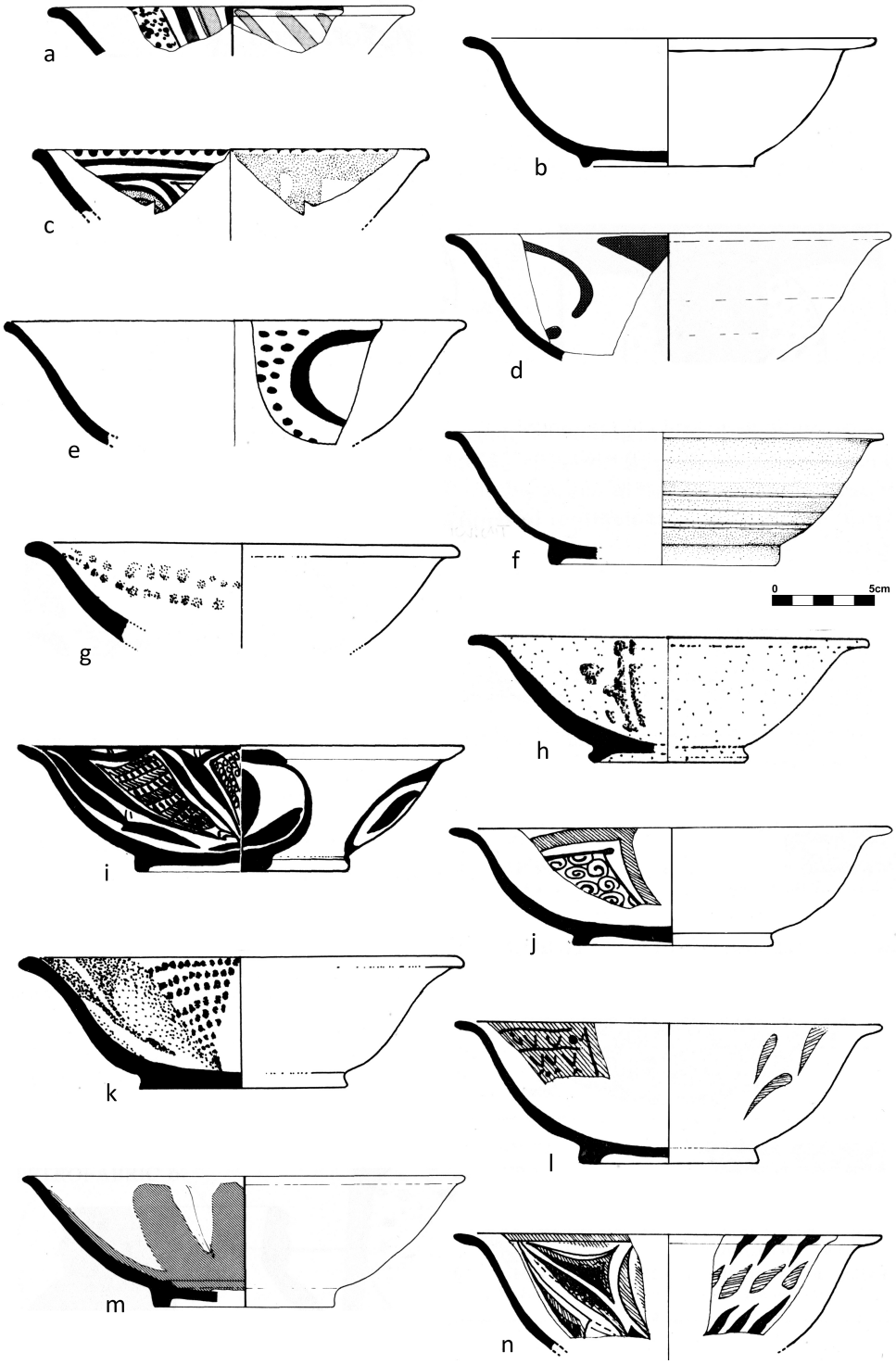


Figure 30 *a-n = SAM-OR2 (Type 46)*

Figure 30						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR2	OPAQ#	Siraf	Mason and Keall, 1991: fig. 5	A-312	1:3
b	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 45: 4	AP.E.75 731.1	1:3
c	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 41: 3	AP.Isl.73 833.1	1:3
e	SAM-OR2	OPAQ#	Siraf	Mason and Keall, 1991: fig. 5	1279	1:3
e	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 41: 2	AP.74 598.55	1:3
f	SAM-OR2	OPAQ#	Manda	Chittick, 1984: fig. 36: d		1:3
g	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 42: 11	AP.E.73 667.2	1:3
h	SAM-OR2	OPAQ#	Sohar	Kervran, 2004: fig. 29: 13	1061.3	1:3
i	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 41: 1	AP.73 388.1	1:3
j	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 40: 5	AP.E.73 1244.12	1:3
k	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 42: 9	AP.73 266.2	1:3
l	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 40: 4	AP.E.73 1244.8	1:3
m	SAM-OR2	OPAQ#	Siraf	Mason and Keall, 1991: fig. 5	959	1:3
n	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 40: 7	AP.E.73 1244.19	1:3

SAM-OR2 (Type 46) - OPAQ#, GRAF.E#

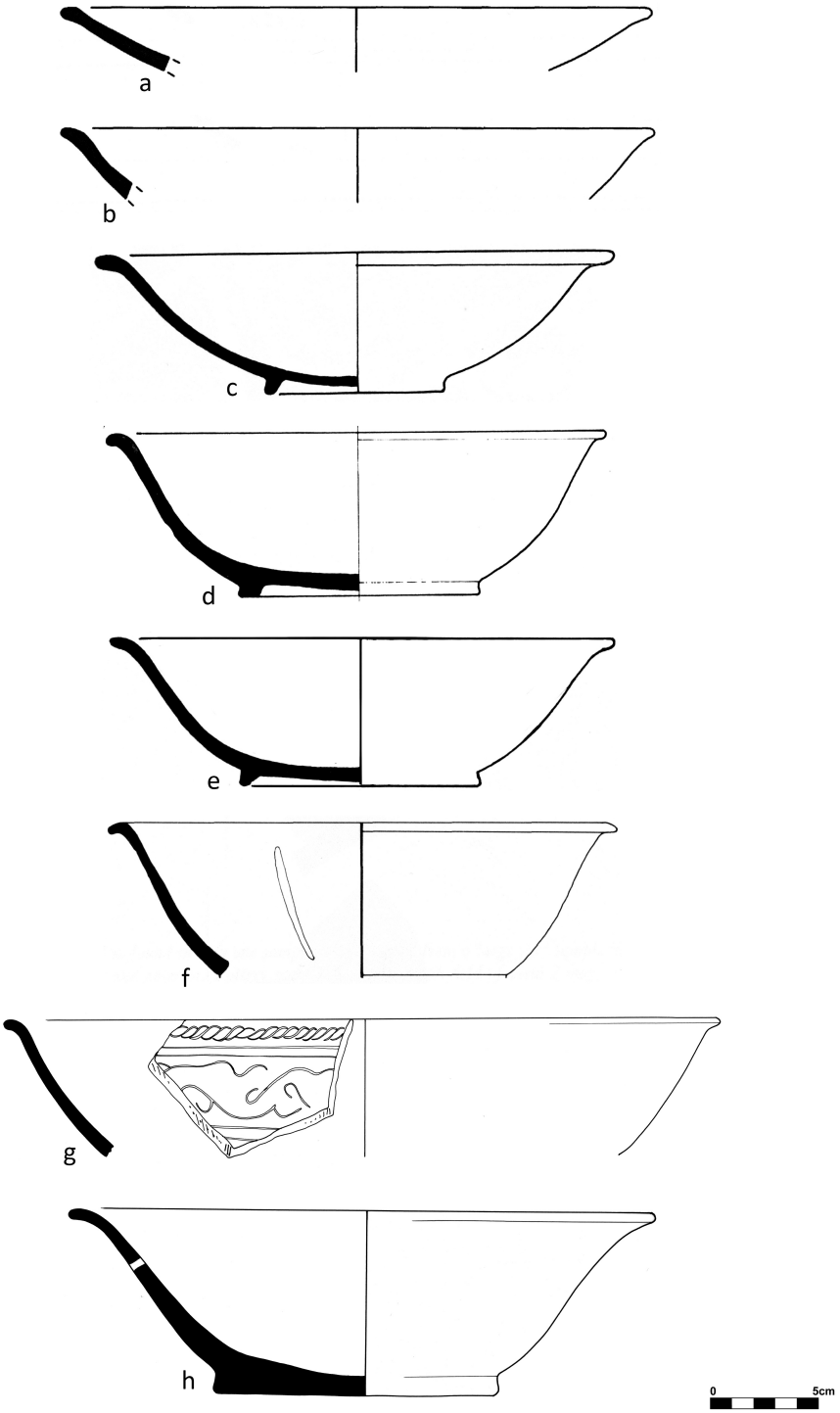


Figure 31 *a-h = SAM-OR2 (Type 46)*

Figure 31						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR2	OPAQ#	Kush	Kennet, 2004: fig. 7	K945	1:3
b	SAM-OR2	OPAQ#	Kush	Kennet, 2004: fig. 7	K943	1:3
c	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 45: 3	AP.E.75 735	1:3
d	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 46: 3	AP.E.73 1244.9	1:3
e	SAM-OR2	OPAQ#	Susa	Kervran, 1977: fig. 45: 1	AP.E.75 730	1:3
f	SAM-OR2	OPAQ#	Siraf	Mason and Keall, 1991: fig. 5	1238	1:3
g	SAM-OR2	GRAF.E#	Siraf		2007.6001,7005	1:3
h	SAM-OR2	OPAQ#	Siraf		2007.6001,8193	1:3

SAM-OR3 - OPAQ#, SPLASH#

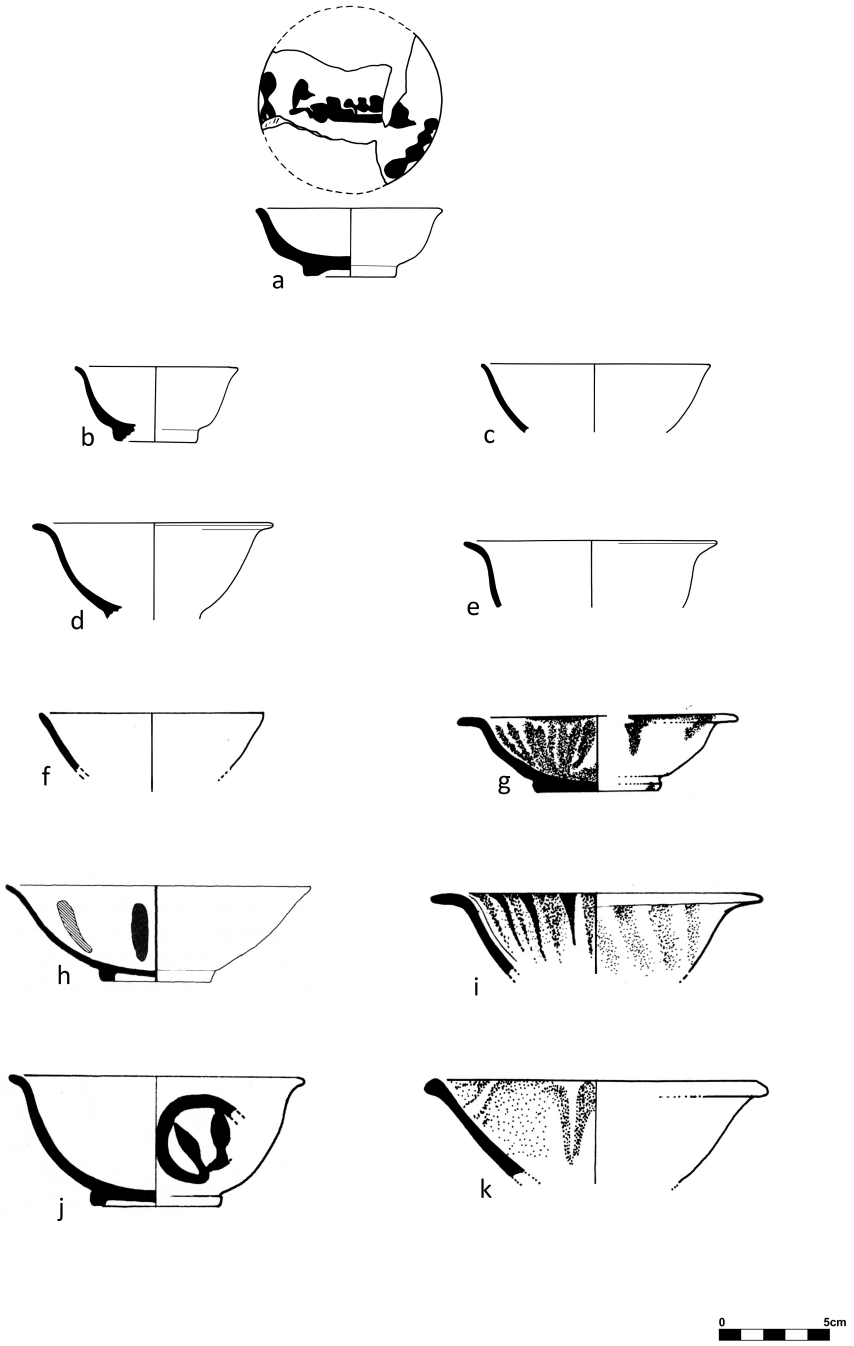


Figure 32 *a-k = SAM-OR3*

Figure 32						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR3	OPAQ#	Siraf		2007.6001,9846	1:3
b	SAM-OR3	OPAQ#	Siraf		2007.6001,8535	1:3
c	SAM-OR3	OPAQ#	Siraf		2007.6001,4384	1:3
d	SAM-OR3	OPAQ#	Siraf		2007.6001,8029	1:3
e	SAM-OR3	OPAQ#	Siraf		2007.6001,6833	1:3
f	SAM-OR3	OPAQ#	Susa	Kervran, 1977: fig. 46: 2	AP.E.73 1244.20	1:3
g	SAM-OR3	SPLASH#	Susa	Kervran, 1977: fig. 42: 5	AP.Isl.73 833.2	1:3
h	SAM-OR3	OPAQ#	Basra	Mason and Keall, 1991: fig. 2: 10		1:3
i	SAM-OR3	SPLASH#	Susa	Kervran, 1977: fig. 42:1	AP.74 633.9	1:3
j	SAM-OR3	OPAQ#	Susa	Kervran, 1977: fig. 40: 3	AP.74 620.3	1:3
k	SAM-OR3	SPLASH#	Susa	Kervran, 1977: fig. 42: 10	AP.E.73 667.4	1:3

SAM-OR4 - SPLASH#, GRAF.E#

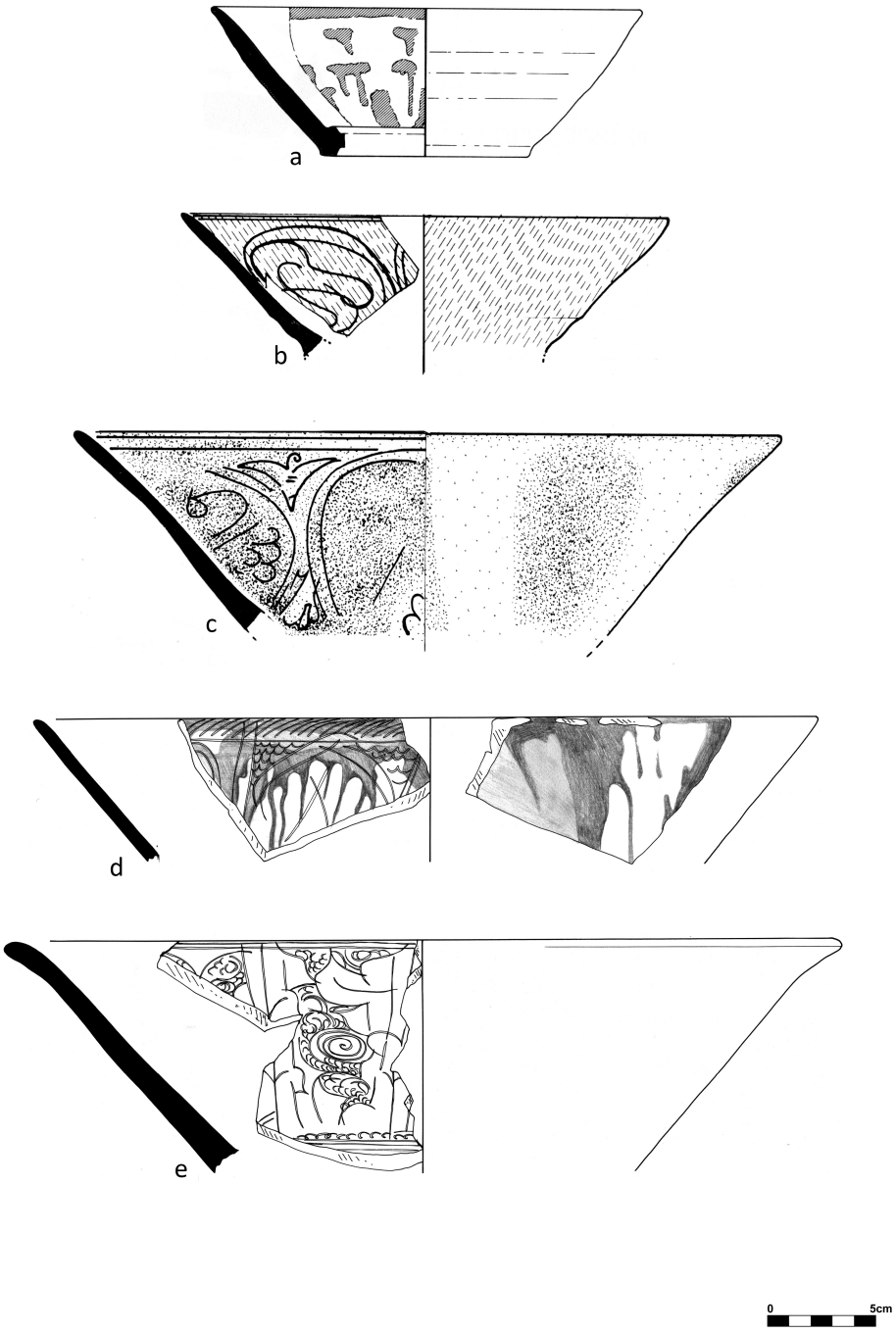


Figure 33 *a-e = SAM-OR4*

Figure 33						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR4	SPLASH#	Siraf	Mason and Keall, 1991: fig. 7	1224	1:3
b	SAM-OR4	GRAF.E#	Susa	Kervran, 1977: fig. 44: 4	AP.E.74	1:3
c	SAM-OR4	GRAF.E#	Susa	Kervran, 1977: fig. 44: 1	AP.74 surface	1:3
d	SAM-OR4	GRAF.E#	Siraf		2007.6001,6288	1:3
e	SAM-OR4	GRAF.E#	Siraf		2007.6001,2238	1:3

SAM-OR5 - OPAQ#

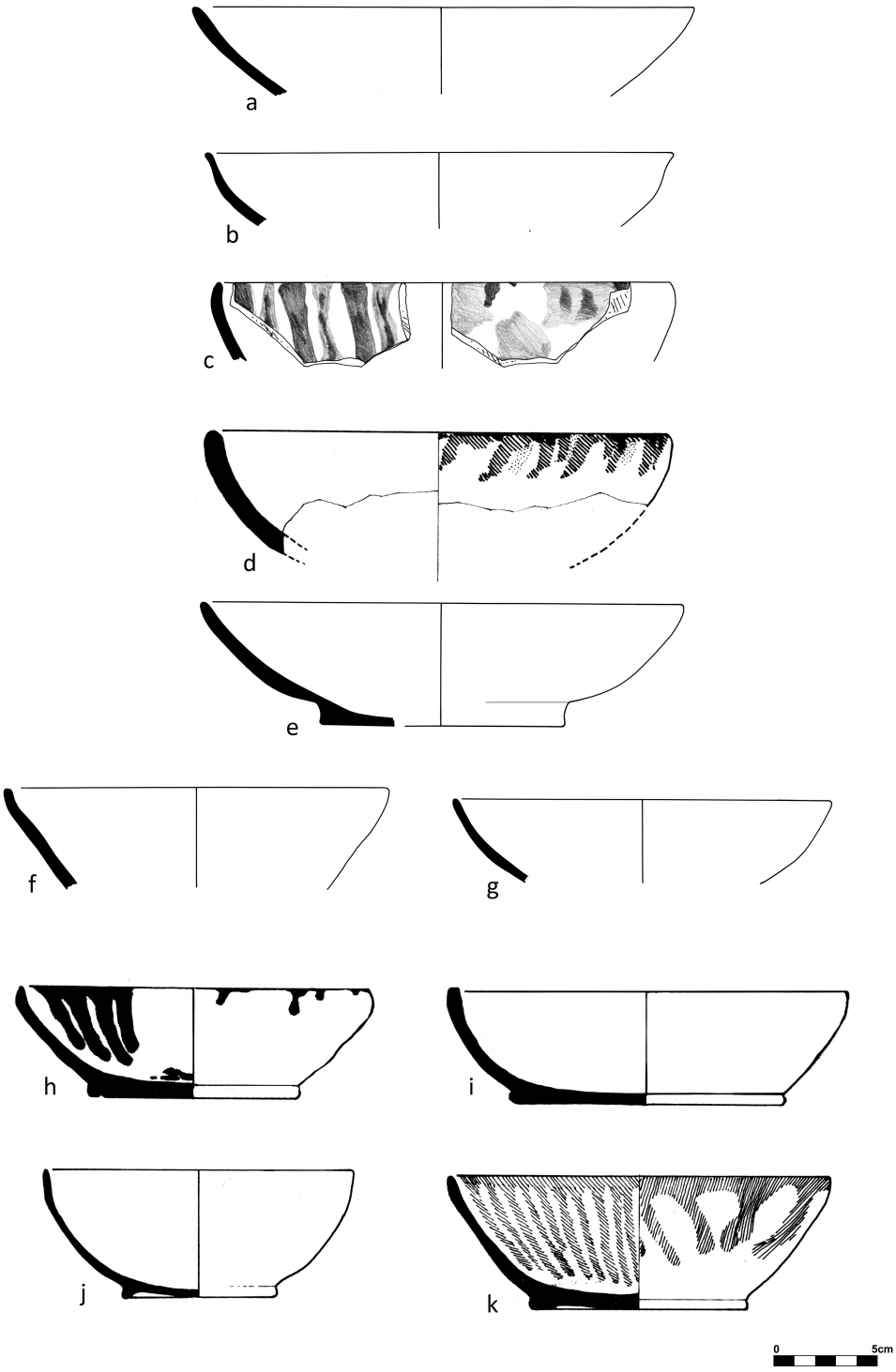


Figure 34 *a-k = SAM-OR5*

Figure 34						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR5	OPAQ#	Siraf		2007.6001,4231	1:3
b	SAM-OR5	OPAQ#	Siraf		2007.6001,8314	1:3
c	SAM-OR5	OPAQ#	Siraf		2007.6001,1212	1:3
d	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 43: 4	AP.E.73 857.1	1:3
e	SAM-OR5	OPAQ#	Siraf		2007.6001,8549	1:3
f	SAM-OR5	OPAQ#	Siraf		2007.6001,3991	1:3
g	SAM-OR5	OPAQ#	Siraf		2007.6001,9316	1:3
h	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 43: 1	AP.Isl.73 833.1	1:3
i	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 43: 2	AP.E.74 620.1	1:3
j	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 40: 9	AP.73 1244.13	1:3
k	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 42: 4	AP.E.73 1244.22	1:3

SAM-OR5 - OPAQ#

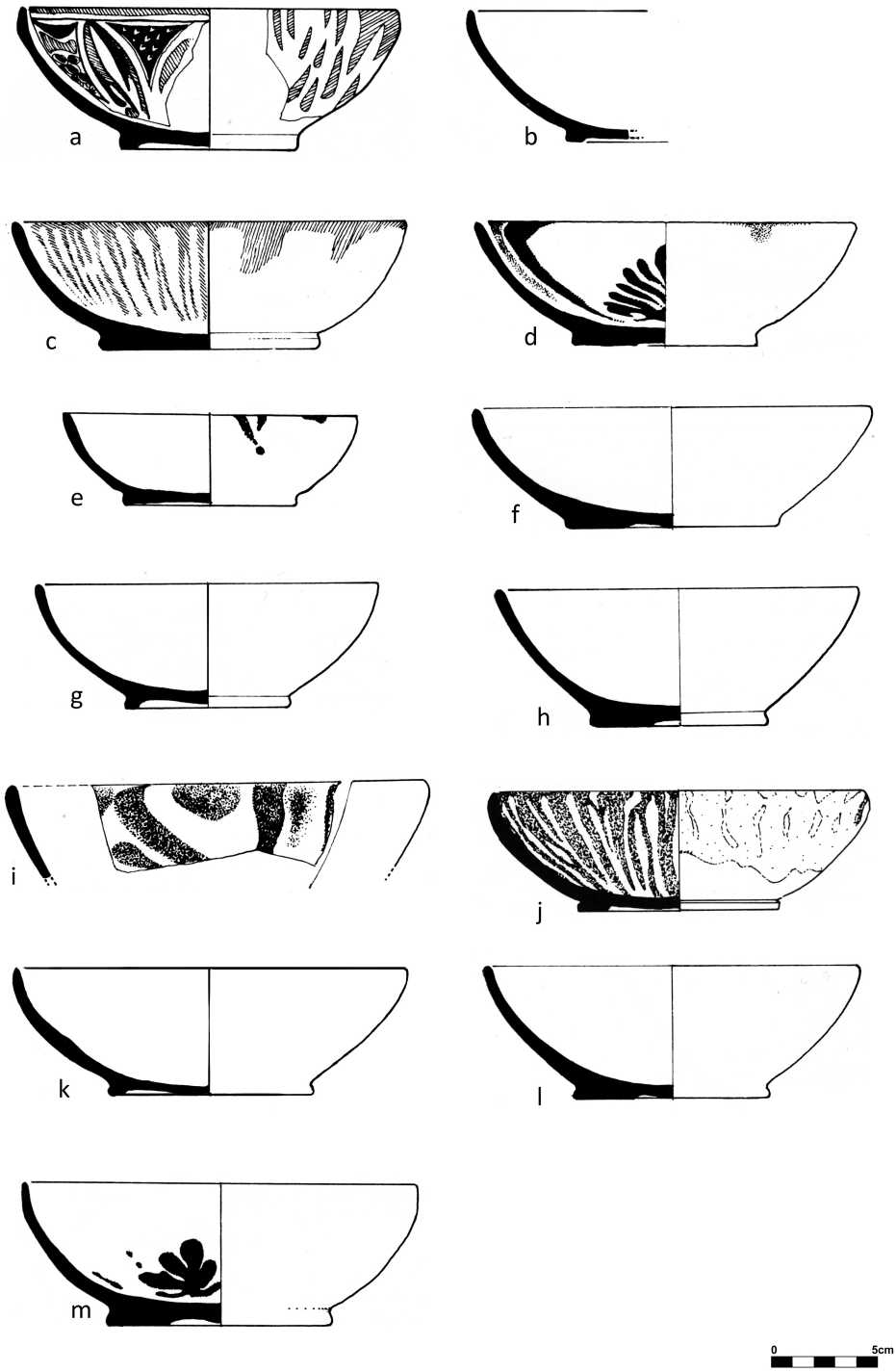
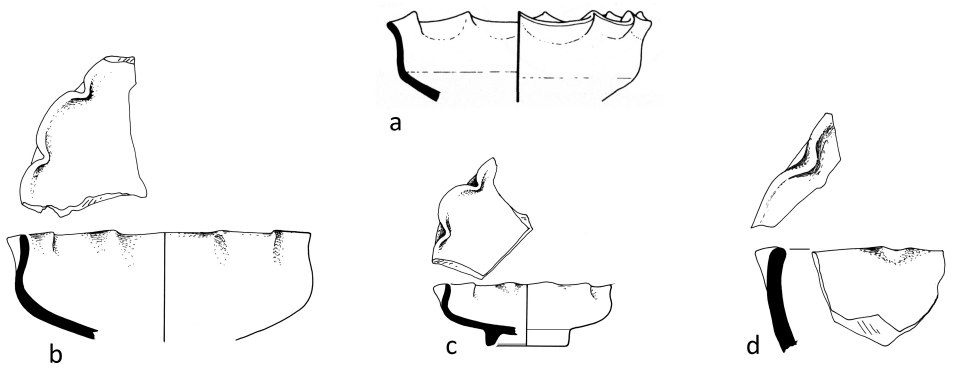


Figure 35 *a-m = SAM-OR5*

Figure 35						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 40: 2	AP.E.73 1244.17	1:3
b	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 40: 8	AP.74 620.5	1:3
c	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 42: 2	AP.E.73 1244.23	1:3
d	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 38: 2	AP.Isl.73 577.1	1:3
e	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 43: 3	AP.VR.75 545.1	1:3
f	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 38: 4	AP.74 626.4	1:3
g	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 39: 4	AP.E.73 1244.10	1:3
h	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 38: 6	AP.E.73 1244.21	1:3
i	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 38: 5	AP.74 633.11	1:3
j	SAM-OR5	OPAQ#	Sohar	Kervran, 2004: fig. 32: 8	2189.1	1:3
k	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 46: 4	AP.Isl.73 901.4	1:3
l	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 38: 7	AP.E.74 633.7	1:3
m	SAM-OR5	OPAQ#	Susa	Kervran, 1977: fig. 37: 3	AP.E.73 577.2	1:3

SAM-OR6 - OPAQ#



SAM-OR7 - OPAQ#, GRAF.E#

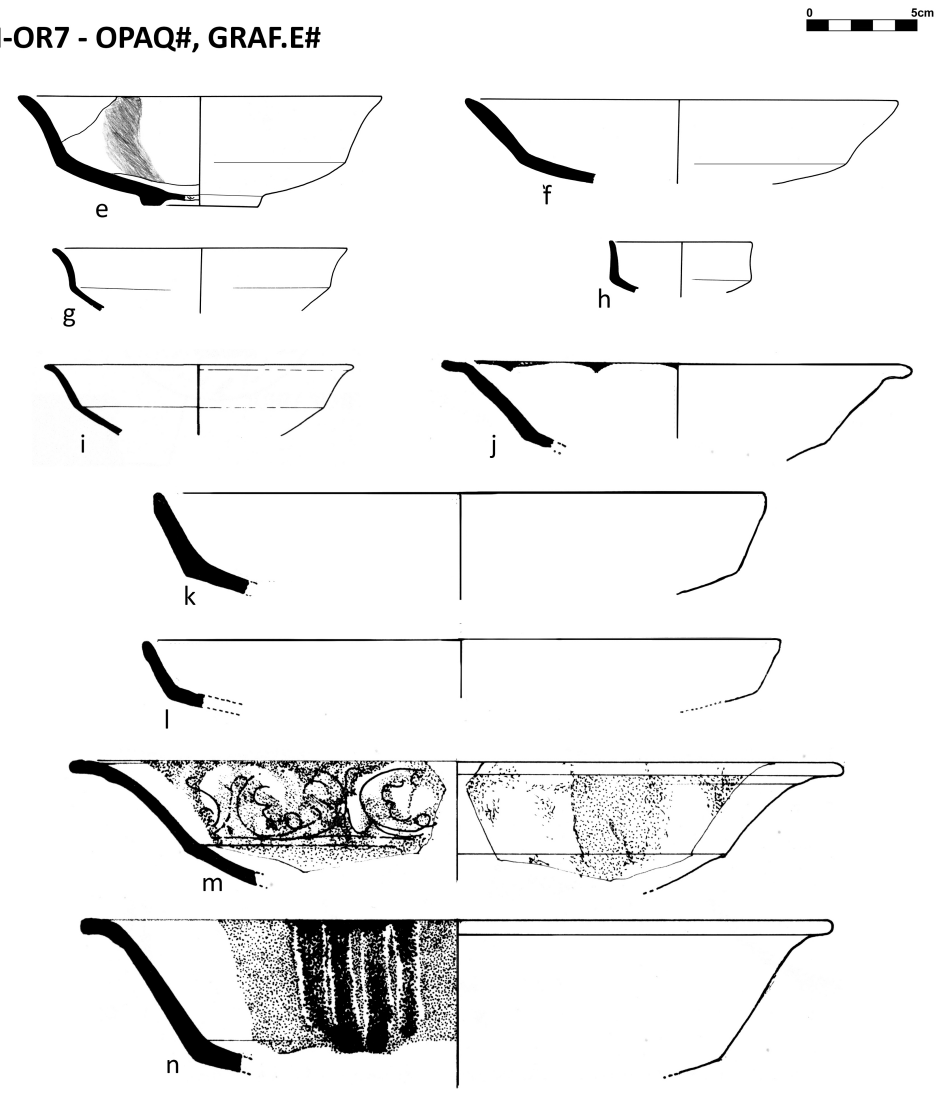
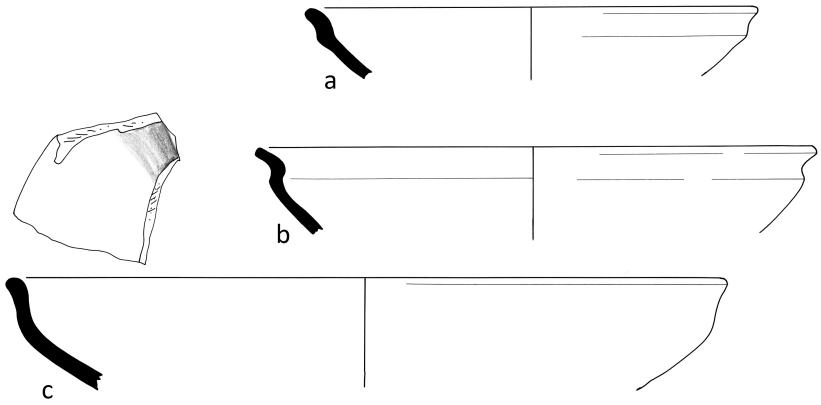


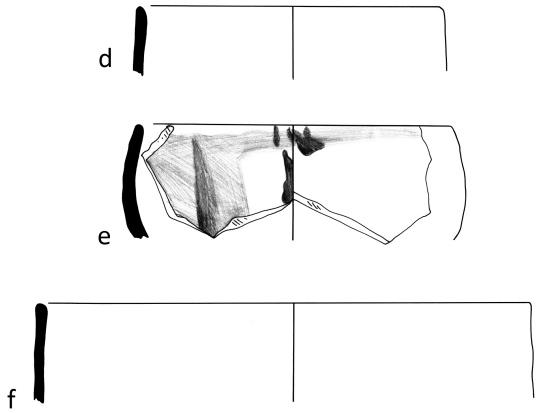
Figure 36 *a-d = SAM-OR6; e-n = SAM-OR7*

Figure 36						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR6	OPAQ#	Siraf	Mason and Keall, 1991: fig. 5	854	1:3
b	SAM-OR6	OPAQ#	Siraf		2007.6001,6958	1:3
c	SAM-OR6	OPAQ#	Siraf		2007.6001,634	1:3
d	SAM-OR6	OPAQ#	Siraf		2007.6001,7780	1:3
e	SAM-OR7	OPAQ#	Siraf		2007.6001,7703	1:3
f	SAM-OR7	OPAQ#	Siraf		2007.6001,6474	1:3
g	SAM-OR7	OPAQ#	Siraf		2007.6001,9549	1:3
h	SAM-OR7	OPAQ#	Siraf		2007.6001,6662	1:3
i	SAM-OR7	OPAQ#	Siraf	Mason and Keall, 1991: fig. 5	1258	1:3
j	SAM-OR7	OPAQ#	Susa	Kervran, 1977: fig. 43: 7	AP.74 633.16	1:3
k	SAM-OR7	OPAQ#	Susa	Kervran, 1977: fig. 46: 6	AP.74 633.15	1:3
l	SAM-OR7	OPAQ#	Susa	Kervran, 1977: fig. 46: 7	AP.74 628.4	1:3
m	SAM-OR7	GRAF.E#	Susa	Kervran, 1977: fig. 44: 6	AP.74 598.43	1:3
n	SAM-OR7	OPAQ#	Susa	Kervran, 1977: fig. 39: 6	AP.74 631.2	1:3

SAM-OR8 - OPAQ#



SAM-OR9 - OPAQ#



SAM-OR10 - OPAQ.WC

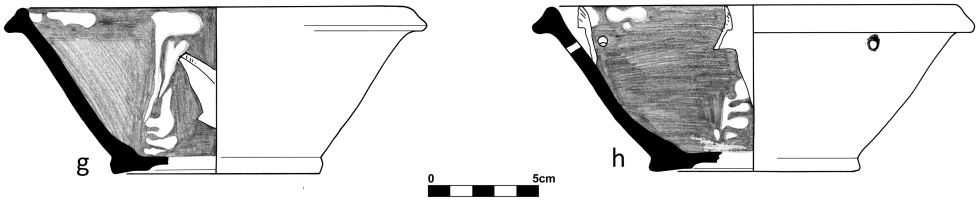
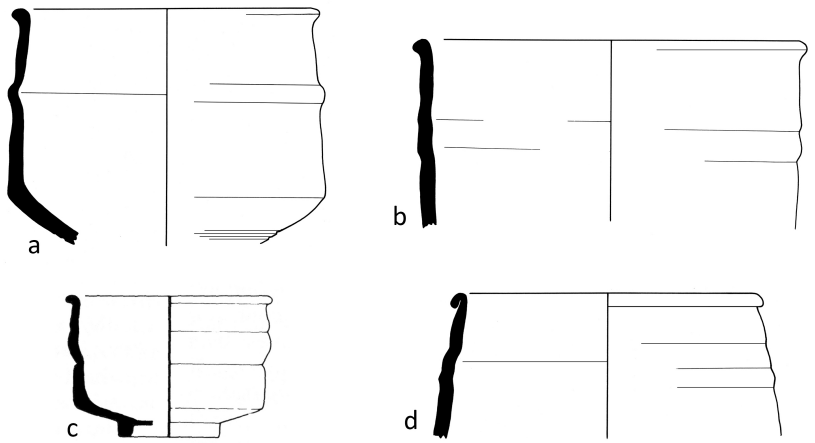


Figure 37 *a-c = SAM-OR8; d-f = SAM-OR9; g-h = SAM-OR10*

Figure 37						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR8	OPAQ#	Siraf		2007.6001,2479	1:3
b	SAM-OR8	OPAQ#	Siraf		2007.6001,51	1:3
c	SAM-OR8	OPAQ#	Siraf		2007.6001,7973	1:3
d	SAM-OR9	OPAQ#	Siraf		2007.6001,1136	1:3
e	SAM-OR9	OPAQ#	Siraf		2007.6001,7709	1:3
f	SAM-OR9	OPAQ#	Siraf		2007.6001,6840	1:3
g	SAM-OR10	OPAQ.WC	Siraf		2007.6001,6295	1:3
h	SAM-OR10	OPAQ.WC	Siraf		2007.6001,6297	1:3

SAM-OR11 - OPAQ#



SAM-OR12 - OPAQ#

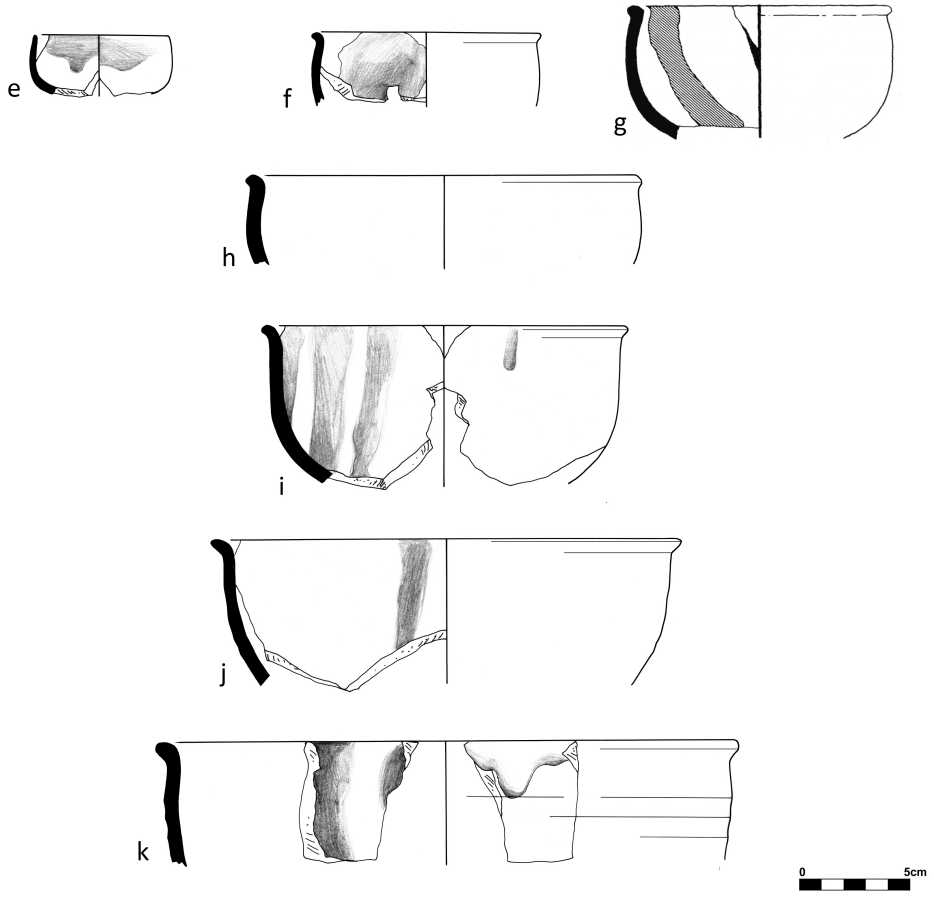
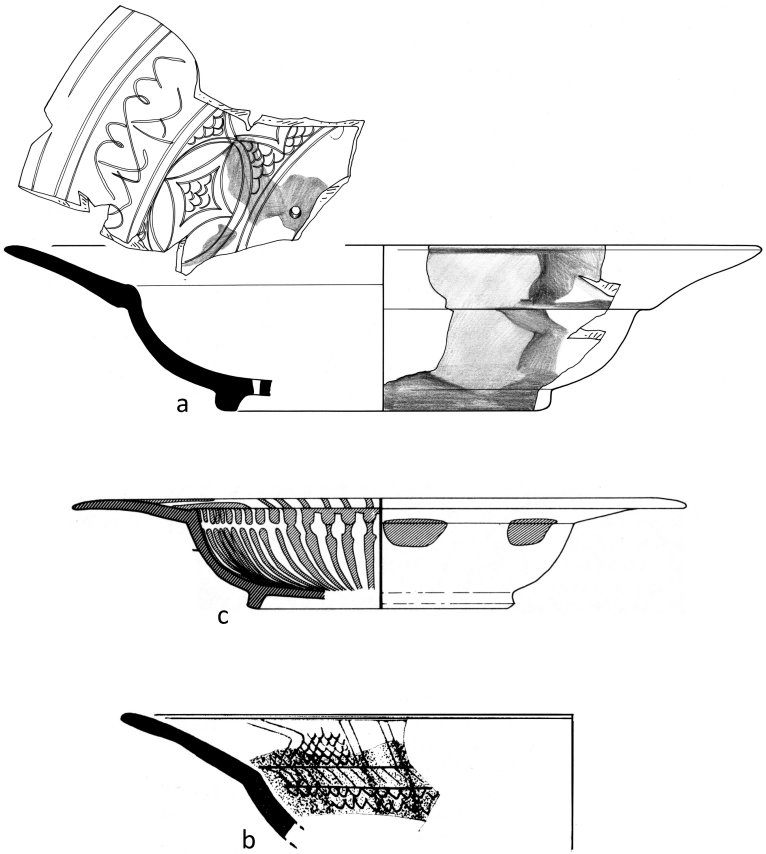


Figure 38 *a-d = SAM-OR11; e-k = SAM-OR12*

Figure 38						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR11	OPAQ#	Siraf		2007.6001,6957	1:3
b	SAM-OR11	OPAQ#	Siraf		2007.6001,6953	1:3
c	SAM-OR11	OPAQ#	Basra	Mason and Keall, 1991: fig. 2: 9		1:3
d	SAM-OR11	OPAQ#	Siraf		2007.6001,7088	1:3
e	SAM-OR12	OPAQ#	Siraf		2007.6001,7045	1:3
f	SAM-OR12	OPAQ#	Siraf		2007.6001,7366	1:3
g	SAM-OR12	OPAQ#	Basra	Mason and Keall, 1991: fig. 2: 5		1:3
h	SAM-OR12	OPAQ#	Siraf		2007.6001,6624	1:3
i	SAM-OR12	OPAQ#	Siraf		2007.6001,6891	1:3
j	SAM-OR12	OPAQ#	Siraf		2007.6001,6950	1:3
k	SAM-OR12	OPAQ#	Siraf		2007.6001,7079	1:3

SAM-OR13 - GRAF.EP#, SPLASH#



SAM-OR14 - SPLASH#

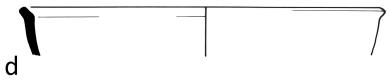


Figure 39 *a-c = SAM-OR13; d = SAM-OR14*

Figure 39						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR13	GRAF.EP#	Siraf		2007.6001,8017	1:3
b	SAM-OR13	SPLASH#	Siraf	Mason and Keall, 1991: fig. 6	1294	1:3
c	SAM-OR13	GRAF.EP#	Susa	Kervran, 1977: fig. 44: 5	AP.73 532.6	1:3
d	SAM-OR14	SPLASH#	Siraf		2007.6001,2558	1:3

SAM-OR15 - OPAQ#

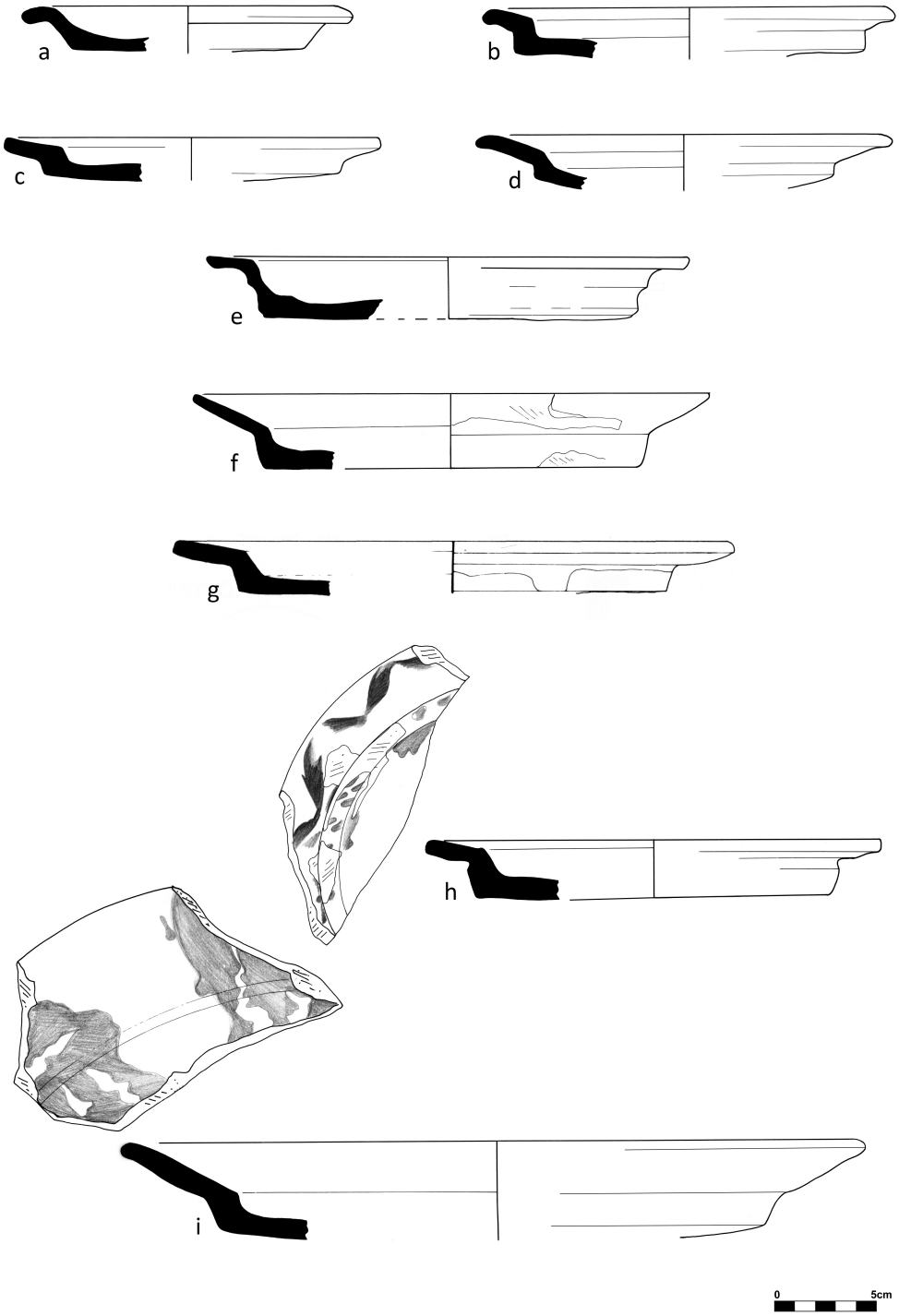
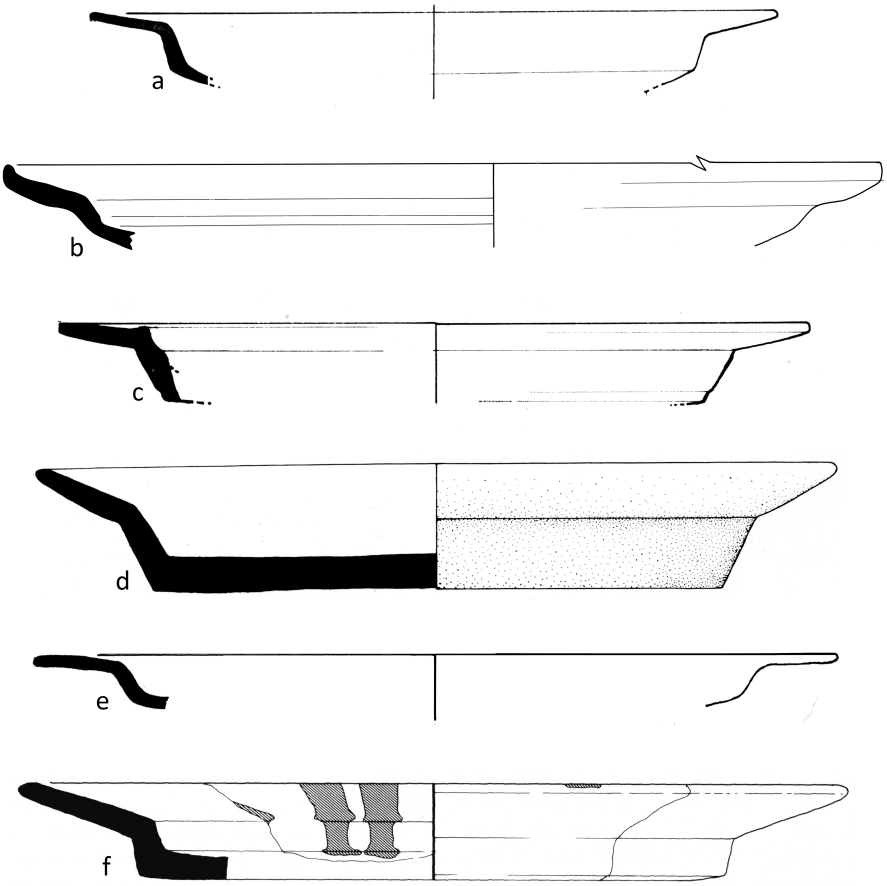


Figure 40 *a-i = SAM-OR15*

Figure 40						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR15	OPAQ#	Siraf		2007.6001,8312	1:3
b	SAM-OR15	OPAQ#	Siraf		2007.6001,9513	1:3
c	SAM-OR15	OPAQ#	Siraf		2007.6001,7626	1:3
d	SAM-OR15	OPAQ#	Siraf		2007.6001,8899	1:3
e	SAM-OR15	OPAQ#	Siraf		2007.6001,8009	1:3
f	SAM-OR15	OPAQ#	Siraf		2007.6001,7428	1:3
g	SAM-OR15	OPAQ#	Siraf	Mason and Keall, 1991: fig. 5	975	1:3
h	SAM-OR15	OPAQ#	Siraf		2007.6001,7504	1:3
i	SAM-OR15	OPAQ#	Siraf		2007.6001,7478	1:3

SAM-OR15 - OPAQ#



SAM-OR16 - OPAQ#

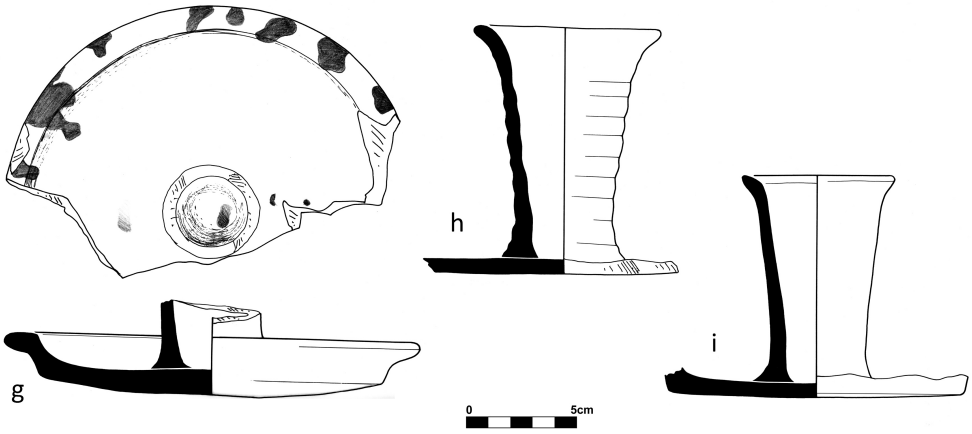


Figure 41 *a-f = SAM-OR15; g-i = SAM-OR16*

Figure 41						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR15	OPAQ#	Susa	Kervran, 1977: fig. 46: 8	AP.74 633.2	1:3
b	SAM-OR15	OPAQ#	Siraf		2007.6001,6935	1:3
c	SAM-OR15	OPAQ#	Susa	Kervran, 1977: fig. 43: 6	AP.74 608.2	1:3
d	SAM-OR15	OPAQ#	Manda	Chittick, 1984: fig. 36: e		1:3
e	SAM-OR15	OPAQ#	Susa	Kervran, 1977: fig. 41: 6	AP.Isl.73 667.5	1:3
f	SAM-OR15	OPAQ#	Basra	Mason and Keall, 1991: fig. 2: 6		1:3
g	SAM-OR16	OPAQ#	Siraf		2007.6001,9861	1:3
h	SAM-OR16	OPAQ#	Siraf		2007.6001,7651	1:3
i	SAM-OR16	OPAQ#	Siraf		2007.6001,8032	1:3

SAM-OR17 - OPAQ#

SAM-OR18 - OPAQ#

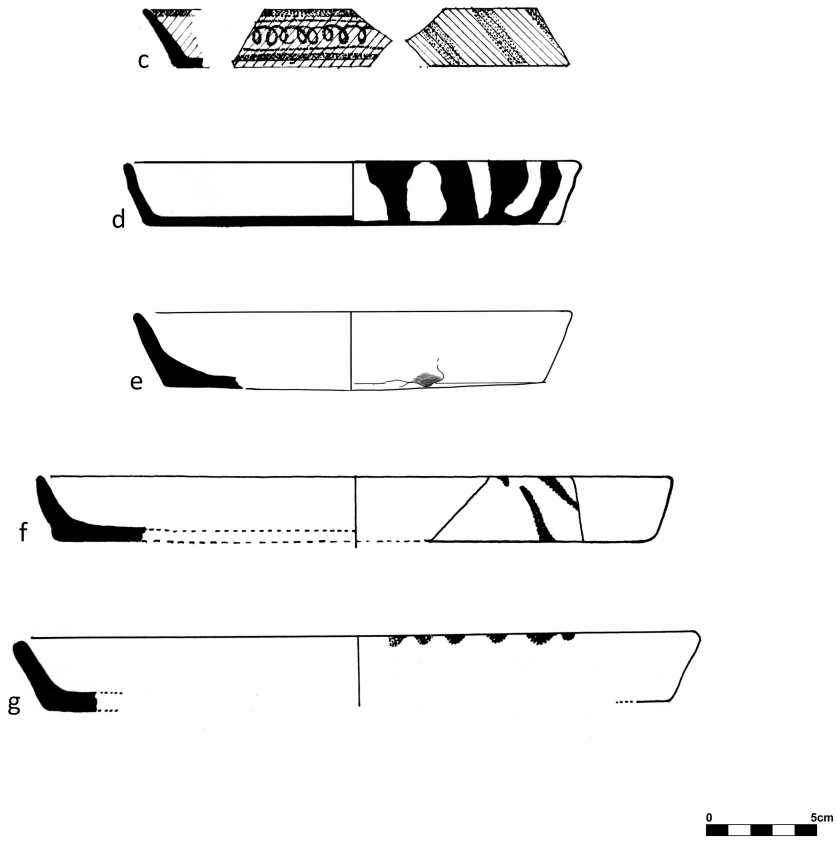


Figure 42 *a-b = SAM-OR17; c-g = SAM-OR18*

Figure 42						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR17	OPAQ#	Siraf		2007.6001,1198	1:3
b	SAM-OR17	OPAQ#	Siraf		2007.6001,8000	1:3
c	SAM-OR18	OPAQ#	Susa	Kervran, 1977: fig. 41: 4	AP.Isl.73 833.13	1:3
d	SAM-OR18	OPAQ#	Susa	Kervran, 1977: fig. 42: 6	AP.Isl.73 833.11	1:3
e	SAM-OR18	OPAQ#	Siraf		2007.6001,7119	1:3
f	SAM-OR18	OPAQ#	Susa	Kervran, 1977: fig. 41: 5	AP.VR 5235	1:3
g	SAM-OR18	OPAQ#	Susa	Kervran, 1977: fig. 37: 8	AP.Isl.75 790.20	1:3

SAM-B1 - OPAQ#, SPLASH#

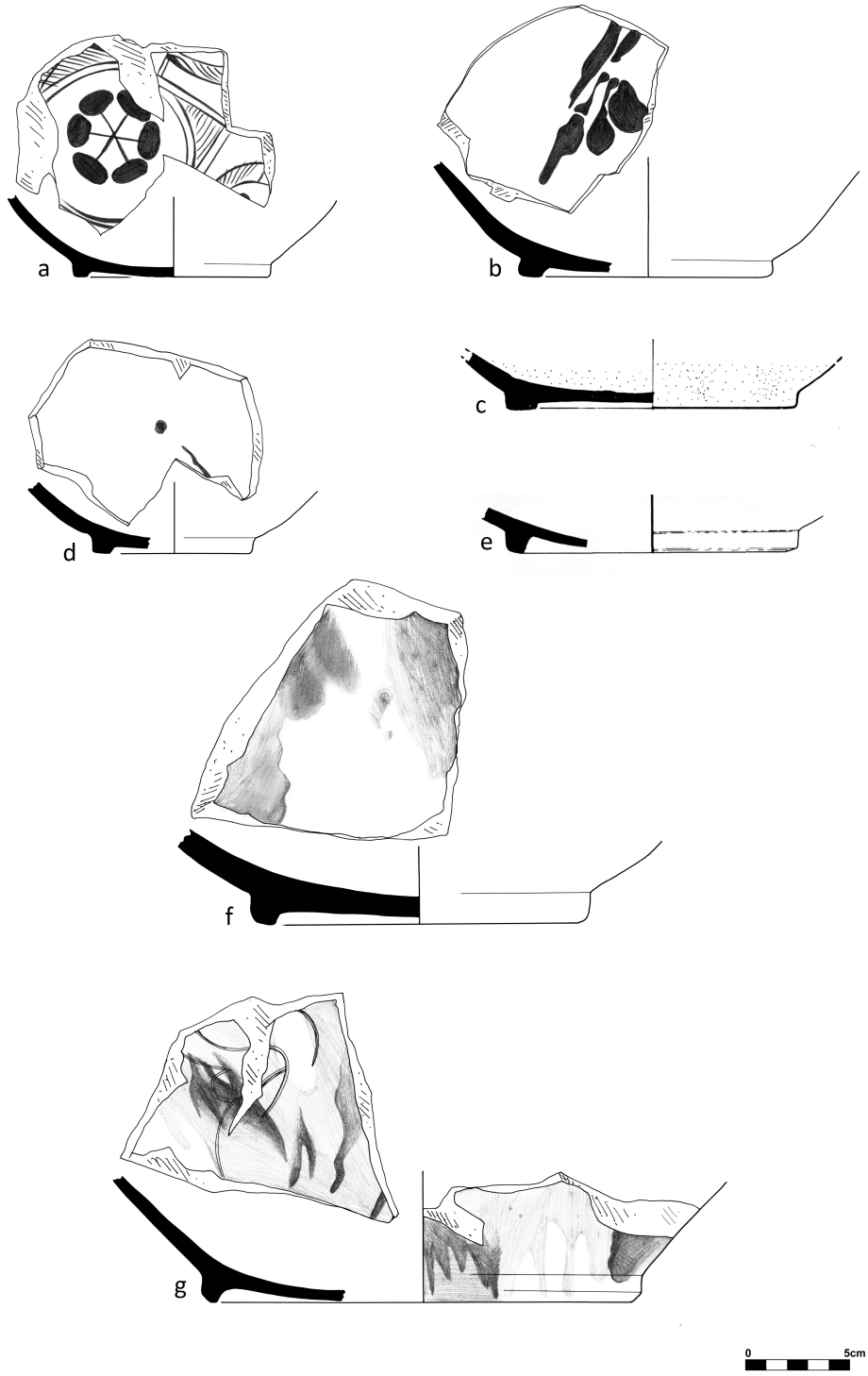
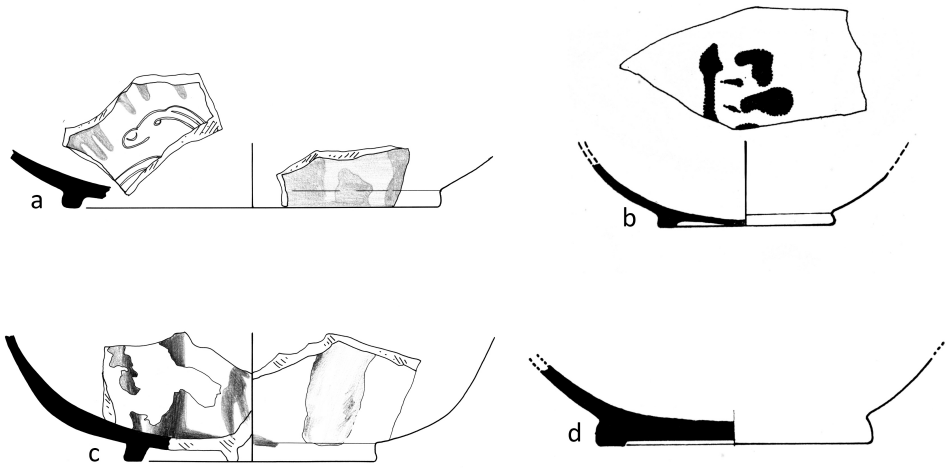


Figure 43 *a-g = SAM-B1*

Figure 43						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-B1	OPAQ#	Siraf		2007.6001,8564	1:3
b	SAM-B1	OPAQ#	Siraf		2007.6001,775	1:3
c	SAM-B1	OPAQ#	Susa	Kervran, 1977: fig. 44: 2	AP.74 Surface	1:3
d	SAM-B1	OPAQ#	Siraf		2007.6001,6300	1:3
e	SAM-B1	OPAQ#	Siraf	Mason and Keall, 1991: fig. 5	A-314	1:3
f	SAM-B1	OPAQ#	Siraf		2007.6001,280	1:3
g	SAM-B1	SPLASH#	Siraf		2007.6001,8264	1:3

SAM-B1 - OPAQ#, SPLASH#, GRAF.E#



SAM-B2 - OPAQ#

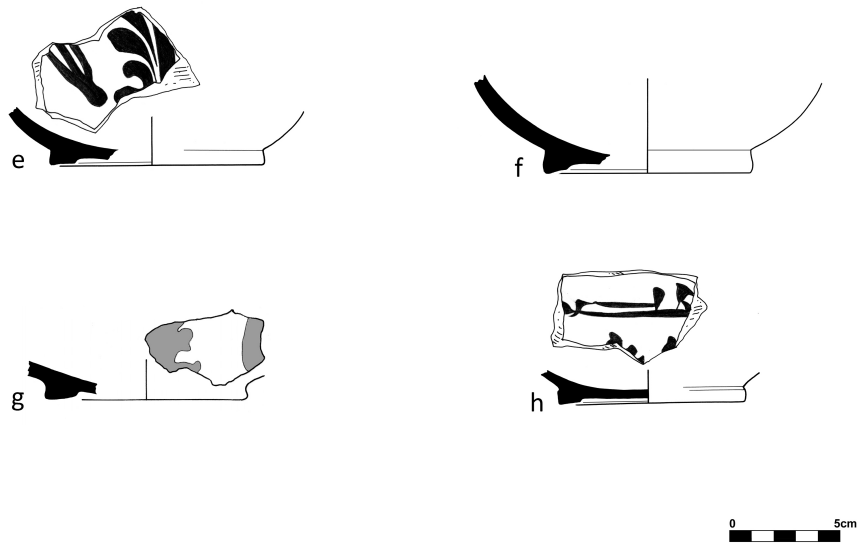


Figure 44 *a-d = SAM-B1; e-h = SAM-B2*

Figure 44						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-B1	GRAF.E#	Siraf		2007.6001,8012	1:3
b	SAM-B1	OPAQ#	Susa	Kervran, 1977: fig. 39: 3	AP.73 1244.16	1:3
c	SAM-B1	SPLASH#	Siraf		2007.6001,7225	1:3
d	SAM-B1	OPAQ#	Susa	Kervran, 1977: fig. 45: 5	AP.73 1059.1	1:3
e	SAM-B2	OPAQ#	Siraf		2007.6001,849	1:3
f	SAM-B2	OPAQ#	Siraf		2007.6001,1195	1:3
g	SAM-B2	OPAQ#	Unguja Ukuu		UU14/1404D	1:3
h	SAM-B2	OPAQ#	Siraf		2007.6001,1624	1:3

SAM-B3 - OPAQ#, SPLASH#, GRAF.E#

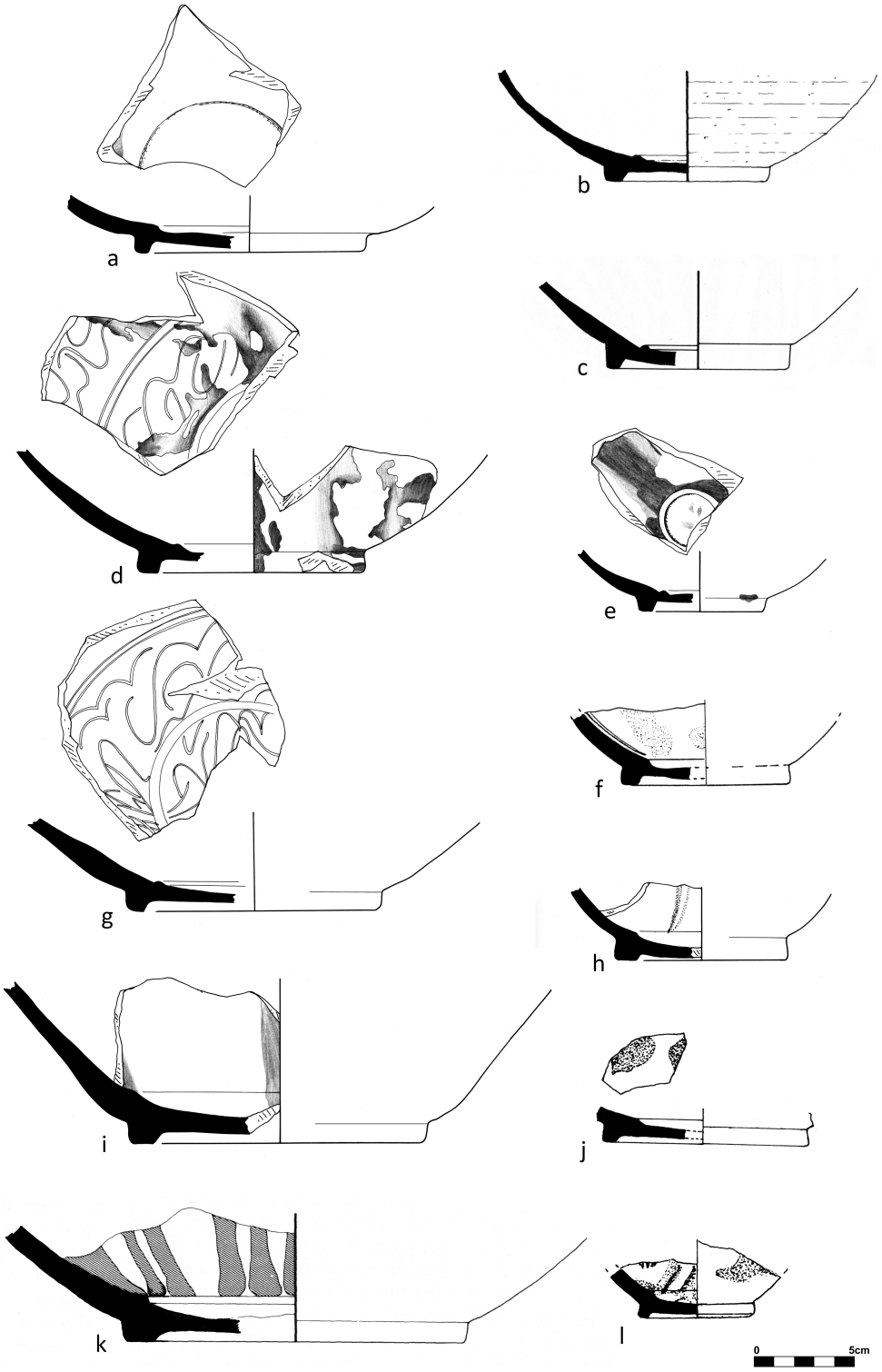
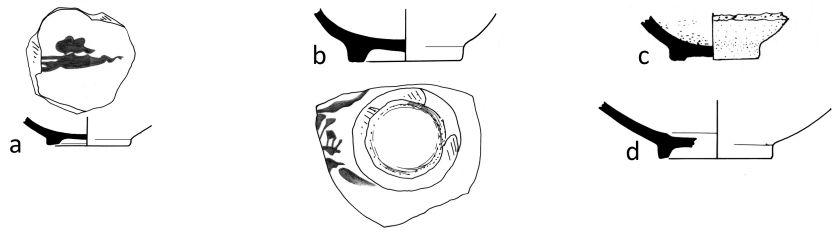


Figure 45 *a-l = SAM-B3*

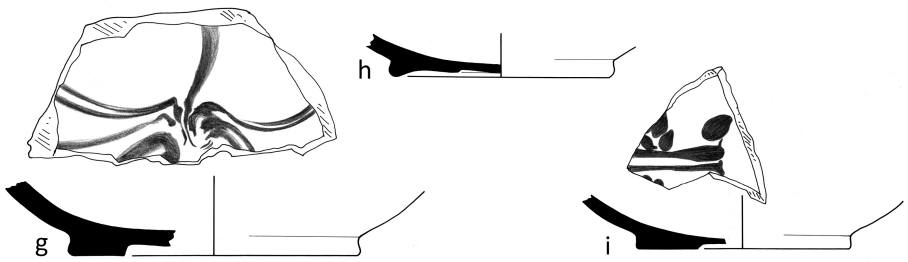
Figure 45						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-B3	OPAQ#	Siraf		2007.6001,7325	1:3
b	SAM-B3	OPAQ#	Basra	Mason and Keall, 1991: fig. 2: 3		1:3
c	SAM-B3	OPAQ#	Siraf	Mason and Keall, 1991: fig. 7	576	1:3
d	SAM-B3	GRAF.E#	Siraf		2007.6001,7233	1:3
e	SAM-B3	SPLASH#	Siraf		2007.6001,6510	1:3
f	SAM-B3	OPAQ#	Sohar	Kervran, 2004: fig. 30: 4	2003.1	1:3
g	SAM-B3	GRAF.E#	Siraf		2007.6001,8020	1:3
h	SAM-B3	OPAQ#	Siraf		2007.6001,7061	1:3
i	SAM-B3	OPAQ#	Siraf		2007.6001,9552	1:3
j	SAM-B3	OPAQ#	Sohar	Kervran, 2004: fig. 21: 16	631.3	1:3
k	SAM-B3	OPAQ#	Basra	Mason and Keall, 1991: fig. 2: 2		1:3
l	SAM-B3	OPAQ#	Sohar	Kervran, 2004: fig. 30: 4	2003.1	1:3

SAM-B4 - OPAQ#



SAM-B5 - OPAQ#

SAM-B6 - OPAQ#



SAM-B7 - SPLASH#

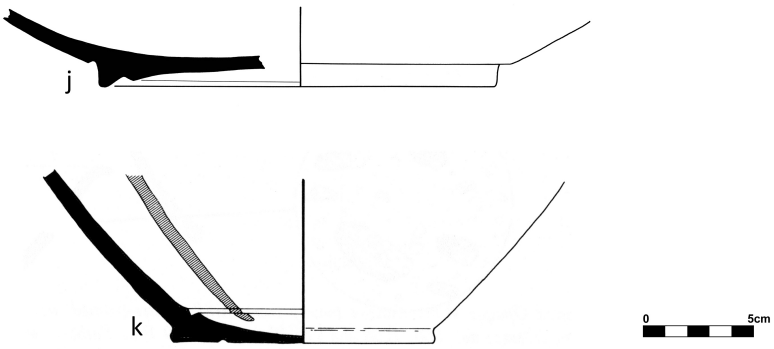
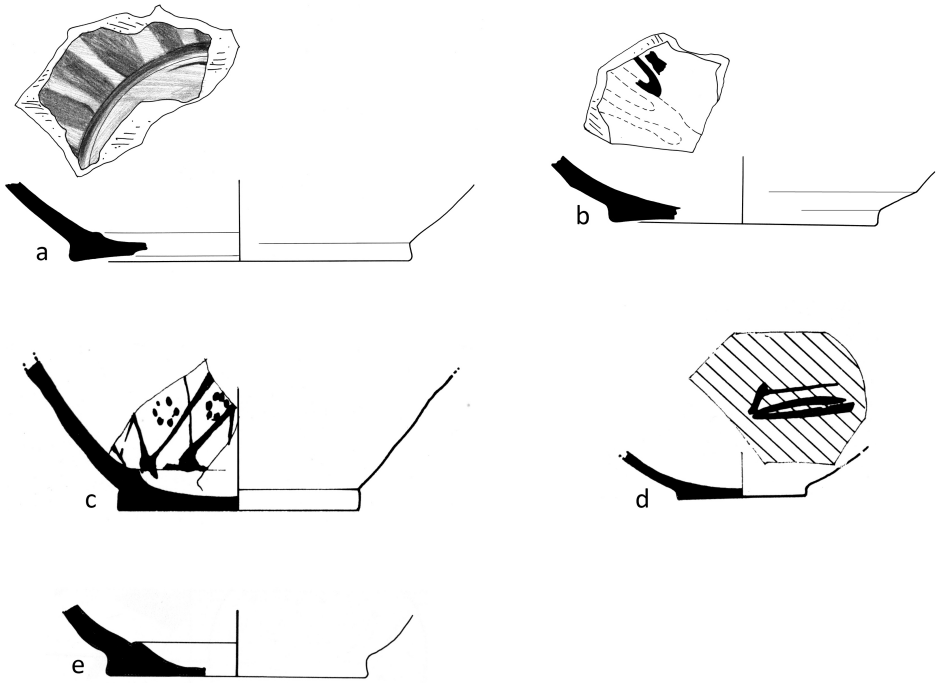


Figure 46 *a-d = SAM-B4; e-f = SAM-B5; g-i = SAM-B6; j-k = SAM-B7*

Figure 46						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-B4	OPAQ#	Siraf		2007.6001,6815	1:3
b	SAM-B4	OPAQ#	Siraf		2007.6001,8235	1:3
c	SAM-B4	OPAQ#	Manda	Chittick, 1984: fig. 36: c		1:3
d	SAM-B4	OPAQ#	Siraf		2007.6001,7516	1:3
e	SAM-B5	OPAQ#	Siraf		2007.6001,7847	1:3
f	SAM-B5	OPAQ#	Siraf		2007.6001,3865	1:3
g	SAM-B6	OPAQ#	Siraf		2007.6001,6278	1:3
h	SAM-B6	OPAQ#	Siraf		2007.6001,692	1:3
i	SAM-B6	OPAQ#	Siraf		2007.6001,1178	1:3
j	SAM-B7	SPLASH#	Siraf		2007.6001,740	1:3
k	SAM-B7	SPLASH#	Siraf	Mason and Keall, 1991: fig. 7	1003	1:3

SAM-B8 - OPAQ#, SPLASH#



SAM-B9 - OPAQ#

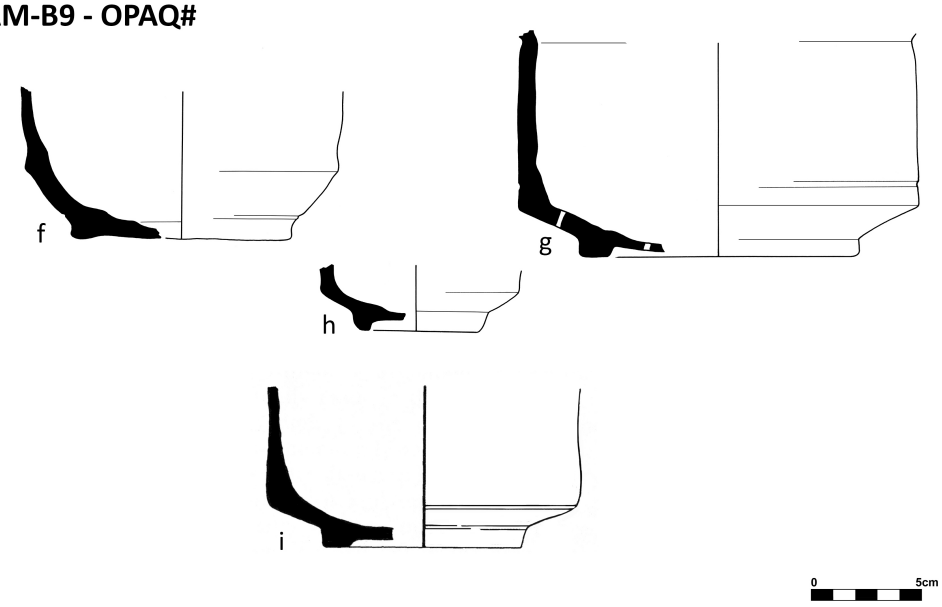
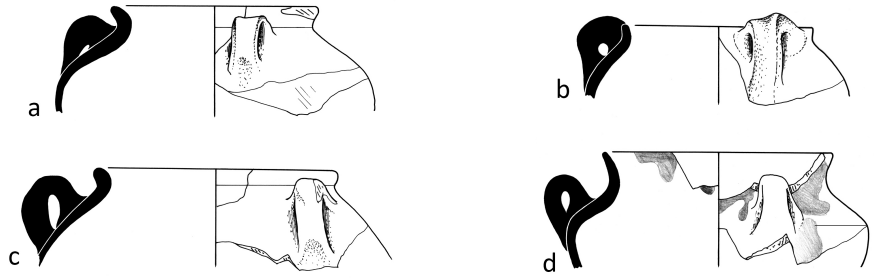


Figure 47 *a-e = SAM-B8; f-i = SAM-B9*

Figure 47						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-B8	SPLASH#	Siraf		2007.6001,9226	1:3
b	SAM-B8	SPLASH#	Siraf		2007.6001,4228	1:3
c	SAM-B8	OPAQ#	Susa	Kervran, 1977: fig. 42: 12	AP.74 588.49	1:3
d	SAM-B8	OPAQ#	Susa	Kervran, 1977: fig. 45: 6	AP.74 591.23	1:3
e	SAM-B8	OPAQ#	Siraf	Mason and Keall, 1991: fig. 7	951	1:3
f	SAM-B9	OPAQ#	Siraf		2007.6001,8393	1:3
g	SAM-B9	OPAQ#	Siraf		2007.6001,7274	1:3
h	SAM-B9	OPAQ#	Siraf		2007.6001,6314	1:3
i	SAM-B9	OPAQ#	Basra	Mason and Keall, 1991: fig. 2: 8		1:3

SAM-CR1 - OPAQ#



SAM-CR2 - OPAQ#

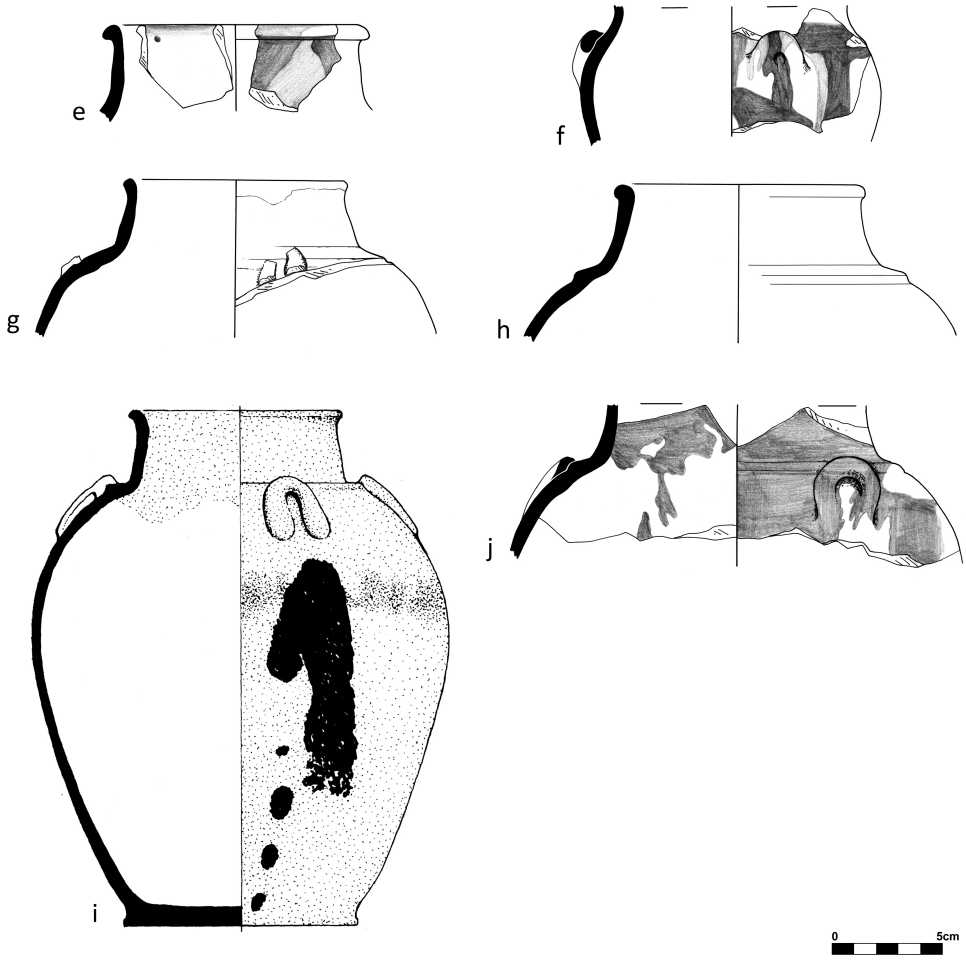
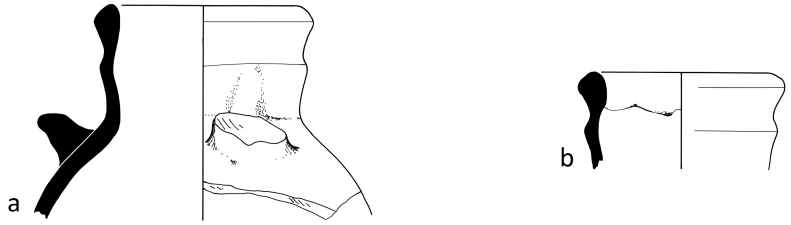


Figure 48 *a-d = SAM-CR1; e-j = SAM-CR2*

Figure 48						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-CR1	OPAQ#	Siraf		2007.6001,8440	1:3
b	SAM-CR1	OPAQ#	Siraf		2007.6001,8274	1:3
c	SAM-CR1	OPAQ#	Siraf		2007.6001,4250	1:3
d	SAM-CR1	OPAQ#	Siraf		2007.6001,7635	1:3
e	SAM-CR2	OPAQ#	Siraf		2007.6001,3059	1:3
f	SAM-CR2	OPAQ#	Siraf		2007.6001,706	1:3
g	SAM-CR2	OPAQ#	Siraf		2007.6001,7078	1:3
h	SAM-CR2	OPAQ#	Siraf		2007.6001,7074	1:3
i	SAM-CR2	OPAQ#	Sohar	Kervran, 2004: fig. 30: 3	1169	1:3
j	SAM-CR2	OPAQ#	Siraf		2007.6001,7521	1:3

SAM-CR3 - OPAQ#



SAM-CR4 - SPLASH#

SAM-CR5 - SPLASH#

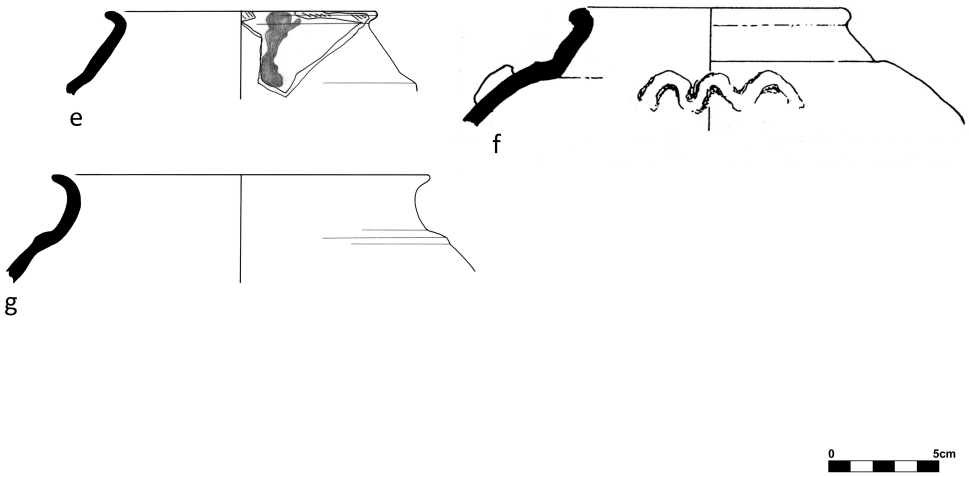
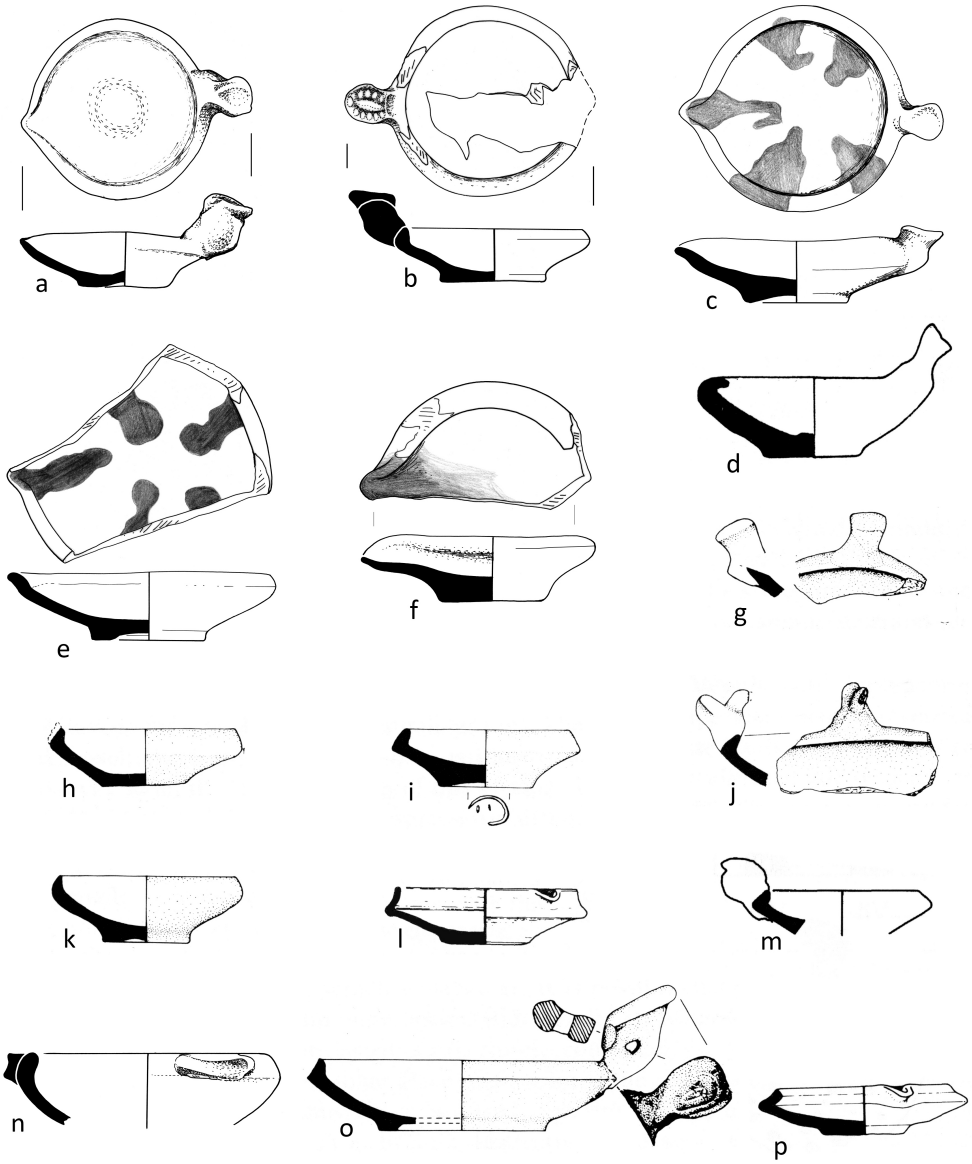


Figure 49 *a-b = SAM-CR3; c-d = SAM-CR4; e-g = SAM-CR5*

Figure 49						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-CR3	OPAQ#	Siraf		2007.6001,2218	1:3
b	SAM-CR3	OPAQ#	Siraf		2007.6001,2211	1:3
c	SAM-CR4	SPLASH#	Siraf		2007.6001,8239	1:3
d	SAM-CR4	SPLASH#	Siraf		2007.6001,8075	1:3
e	SAM-CR5	SPLASH#	Siraf		2007.6001,6536	1:3
f	SAM-CR5	SPLASH#	Sohar	Kervran, 2004: fig. 34: 20	2188.1	1:3
g	SAM-CR5	SPLASH#	Siraf		2007.6001,8276	1:3

SAM-OR19 (Type 61) - OPAQ#, SPLASH#



SAM-OR20 - OPAQ#

Figure 50 *a-p = SAM-OR19 (Type 61); q-r = SAM-OR20*

Figure 50						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SAM-OR19	OPAQ#	Siraf		2007.6001,9845	1:3
b	SAM-OR19	OPAQ#	Siraf		2007.6001,8359	1:3
c	SAM-OR19	OPAQ#	Siraf		2007.6001,9847	1:3
d	SAM-OR19	OPAQ#	Sohar	Kervran, 2004: fig. 29: 2	1086.6	1:3
e	SAM-OR19	SPLASH#	Siraf		2007.6001,7997	1:3
f	SAM-OR19	SPLASH#	Siraf		2007.6001,9224	1:3
g	SAM-OR19	OPAQ#	Manda	Chittick, 1984: fig. 35: g		1:3
h	SAM-OR19	OPAQ#	Manda	Chittick, 1984: fig. 35: d		1:3
i	SAM-OR19	OPAQ#	Manda	Chittick, 1984: fig. 35: c		1:3
j	SAM-OR19	OPAQ#	Manda	Chittick, 1984: fig. 35: e		1:3
k	SAM-OR19	OPAQ#	Manda	Chittick, 1984: fig. 35: j		1:3
l	SAM-OR19	OPAQ#	Basra	Mason and Keall, 1991: fig. 2: 4		1:3
m	SAM-OR19	OPAQ#	Kush	Kennet, 2004: fig. 7	K2347	1:3
n	SAM-OR19	OPAQ#	Siraf		2007.6001,8465	1:3
o	SAM-OR19	OPAQ#	Manda	Chittick, 1984: fig. 35: i		1:3
p	SAM-OR19	OPAQ#	Siraf	Mason and Keall, 1991: fig. 5	950	1:3
q	SAM-OR20	OPAQ#	Basra	Mason and Keall, 1991: fig. 2: 7	2007.6001,2211	1:3
r	SAM-OR20	OPAQ#	Siraf		2007.6001,8378	1:3

SGR – Late Sgraffiatos

Type	Form	Class(es)	Illustration	Concordance	Description
SGR-OR1	Bowl	GRAF (Late)	Fig. 51	Kennet, 2004: Type 28	Straight, rounded, or slightly thickened lip
SGR-OR2	Bowl	GRAF (Late)	Fig. 52	Kennet, 2004: Type 36	Delicately everted, thin lip
SGR-OR3	Bowl	GRAF (Late)	Fig. 53		Facetted outer lip, with a slight indentation in the outer face
SGR-OR4	Bowl	GRAF (Late)	Fig. 54: a-b		Facetted, rounded, outer lip
SGR-OR5	Bowl	GRAF (Late)	Fig. 54: c-h	Kennet, 2004: Type 35	Carinated bowl, with an everted lip, straight or foliated rim
SGR-OR6	Bowl	GRAF (Late)	Fig. 55: a-b		Squared lip, with a slight kink in the wall below the rim
SGR-OR7	Bowl	GRAF (Late)	Fig. 55: c-d		Foliated rim, simple rounded lip
SGR-OR8	Bowl	GRAF (Late)	Not illustrated		
SGR-OR9	Bowl	GRAF (Late)	Fig. 56	Kennet, 2004: Type 26	Horizontal flange rim
SGR-OR10	Bowl	GRAF (Late)	Fig. 57: a-b		Closed carinated bowl
SGR-OR11	Bowl	GRAF (Late)	Fig. 57: c-f	Kennet, 2004: Type 25	Hemispherical bowl, with a pointed lip
SGR-OR12	Bowl	GRAF (Late)	Not illustrated		Gently everted lip
SGR-OR13	Bowl	GRAF (Late)	Not illustrated		Straight rounded lip
SGR-OR14	Bowl	GRAF (Late)	Not illustrated		Simple rounded lip, with a recess in the outer wall a few millimetres below the rim
SGR-OR15	Bowl	GRAF (Late)	Not illustrated		Foliated rim, simple rounded lip
SGR-B1	Bowl	GRAF (Late)	Fig. 58: a-e		Foot with pointed, or chamfered edge, and a turned depression inside
SGR-B2	Bowl	GRAF (Late)	Fig. 58: f-h		Flat pedestal base, with a turned concave centre, and chamfered edge
SGR-H1	Bowl	MONO.G	Not illustrated		Zoomorphic handle (stylized cows head) attached to standard rounded bowl rim type SGR-OR11
SGR-CR1	Jar	GRAF (Late)	Not illustrated		Collar-necked jar, with folded and flattened rim, and sharply defined lower lip

SGR-OR1 (Type 28) - Late GRAF

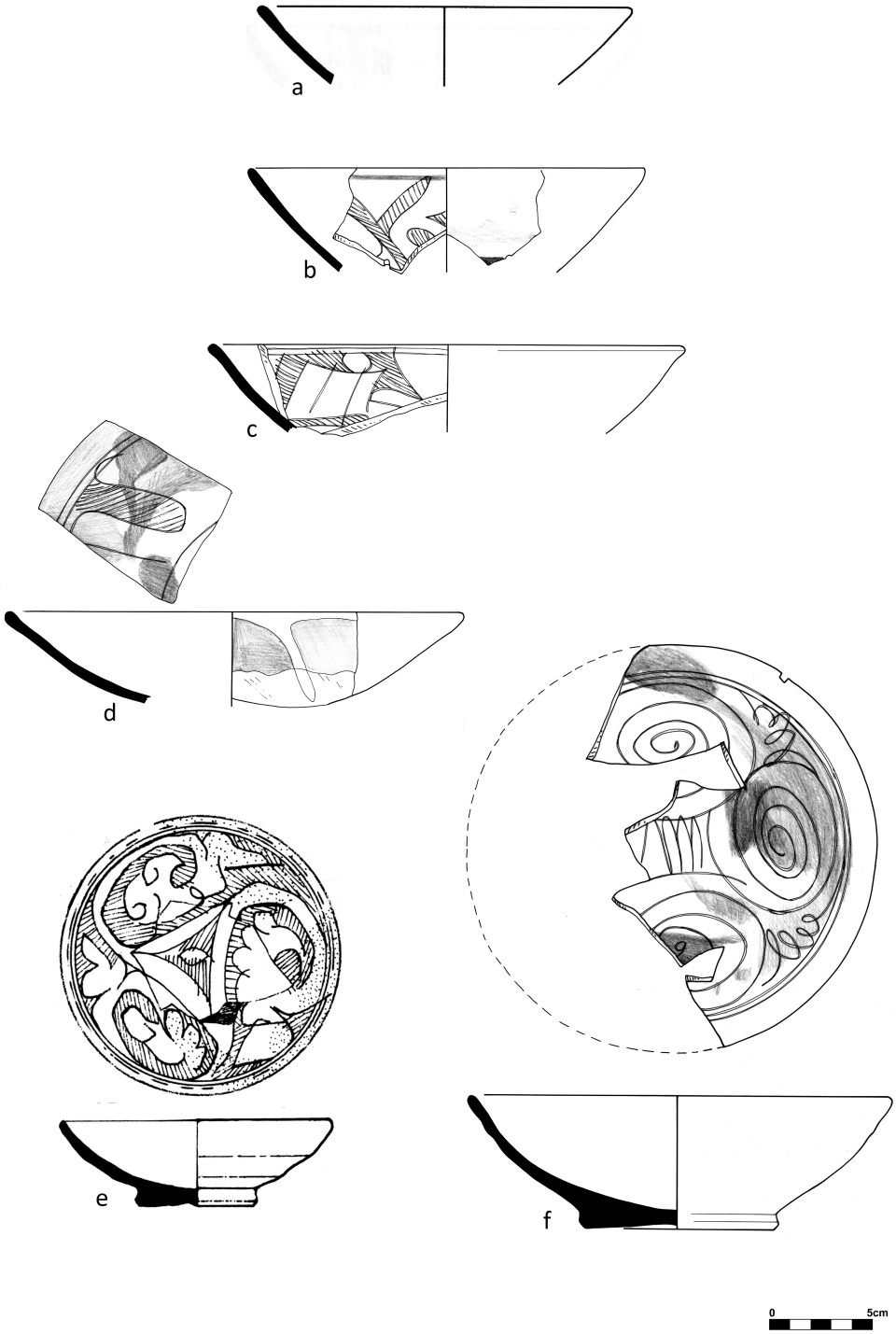


Figure 51 *a-f = SGR-OR1 (Type 28)*

Figure 51						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SGR-OR1	GRAF (Late)	Kush	Kennet, 2004: fig. 9	K284	1:3
b	SGR-OR1	GRAF (Late)	Siraf		2007.6001,327	1:3
c	SGR-OR1	GRAF (Late)	Siraf		2007.6001,2210	1:3
d	SGR-OR1	GRAF (Late)	Siraf		2007.6001,221	1:3
e	SGR-OR1	GRAF (Late)	Sohar	Kervran, 2004: fig. 29: 12	1065.1	1:3
f	SGR-OR1	GRAF (Late)	Siraf		2007.6001,2963	1:3

SGR-OR2 (Type 36) - Late GRAF

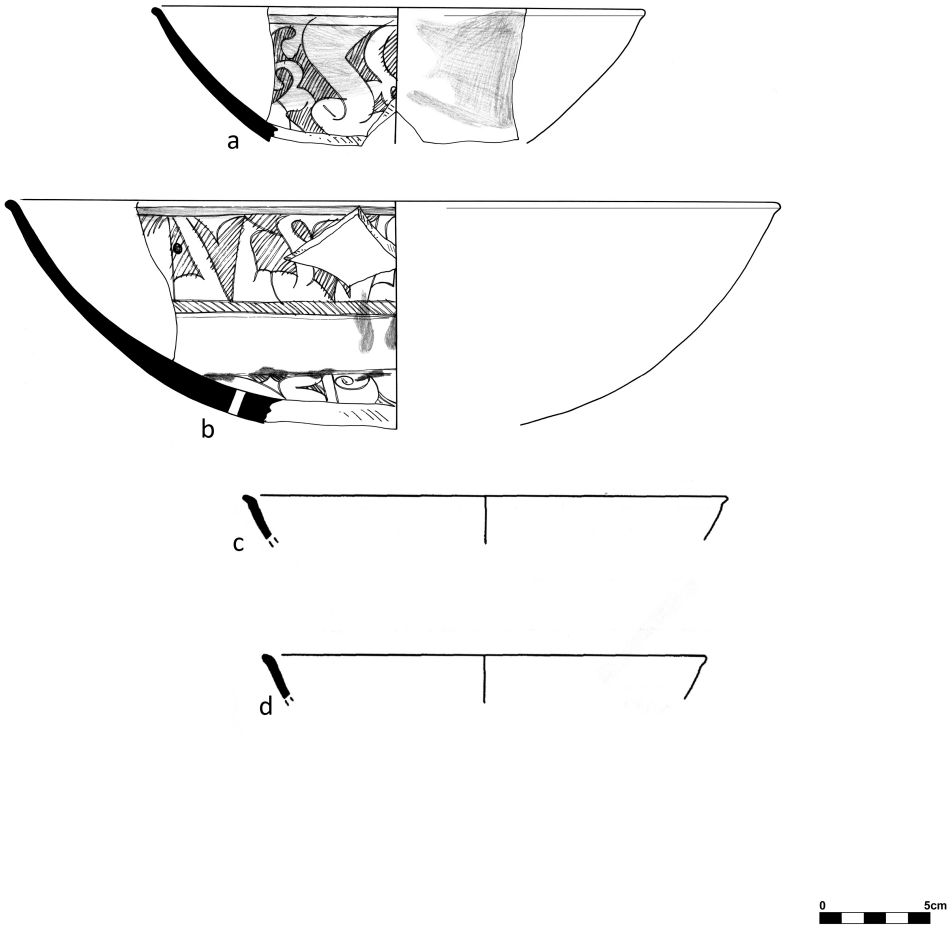


Figure 52 *a-d = SGR-OR2 (Type 36)*

Figure 52						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SGR-OR2	GRAF (Late)	Siraf		2007.6001,5978	1:3
b	SGR-OR2	GRAF (Late)	Siraf		2007.6001,2457	1:3
c	SGR-OR2	GRAF (Late)	Kush	Kennet, 2004: fig. 8	K919	1:3
d	SGR-OR2	GRAF (Late)	Kush	Kennet, 2004: fig. 8	K920	1:3

SGR-OR3 - Late GRAF

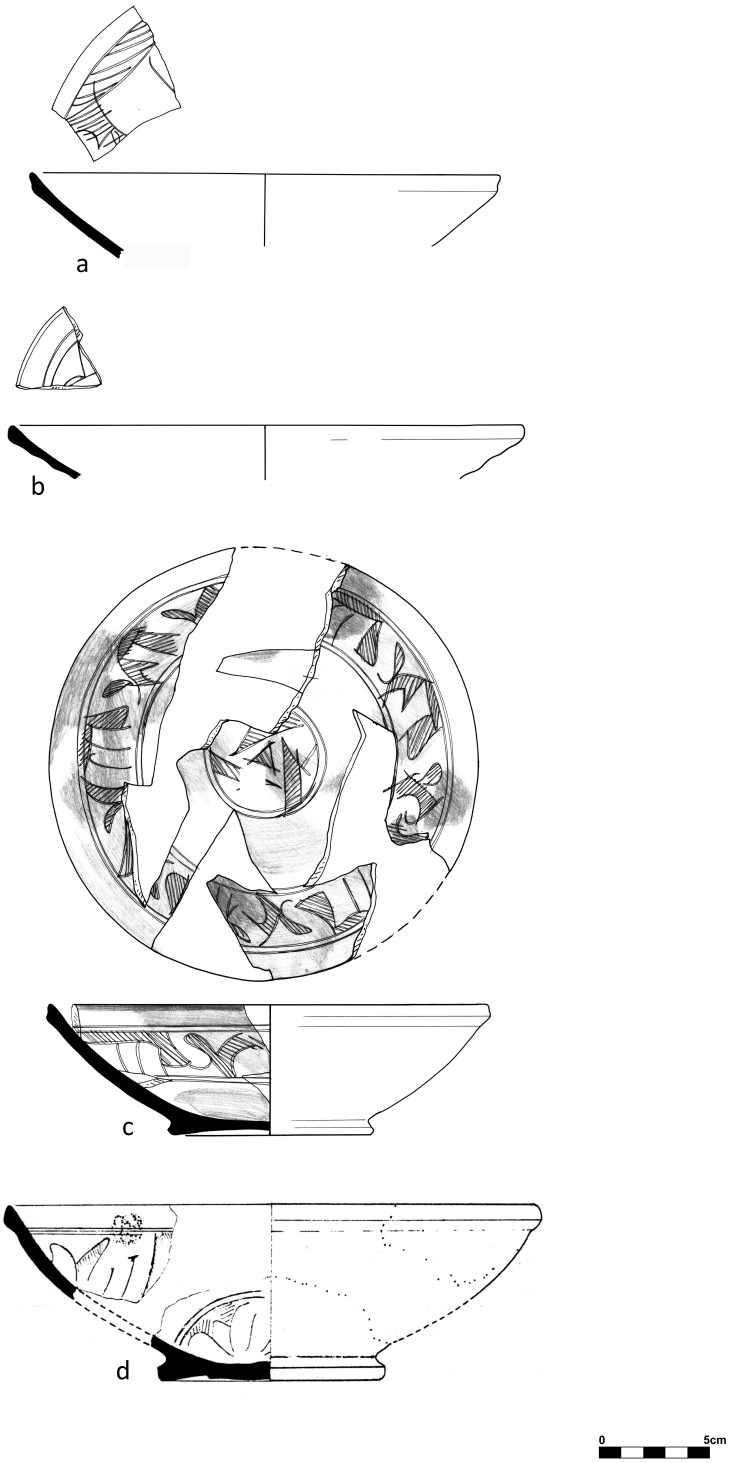
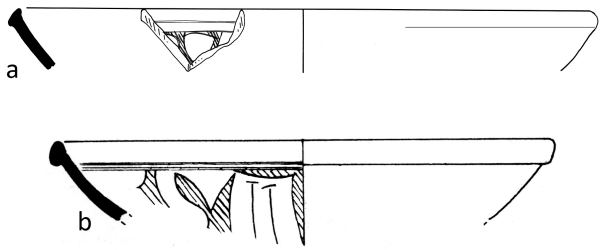


Figure 53 *a-d = SGR-OR3*

Figure 53						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SGR-OR3	GRAF (Late)	Siraf		2007.6001,315	1:3
b	SGR-OR3	GRAF (Late)	Siraf		2007.6001,154	1:3
c	SGR-OR3	GRAF (Late)	Siraf		2007.6001,4988	1:3
d	SGR-OR3	GRAF (Late)	Sohar	Kervran, 2004: fig. 34: 9	2201.11	1:3

SGR-OR4 - Late GRAF



SGR-OR5 (Type 35) - Late GRAF

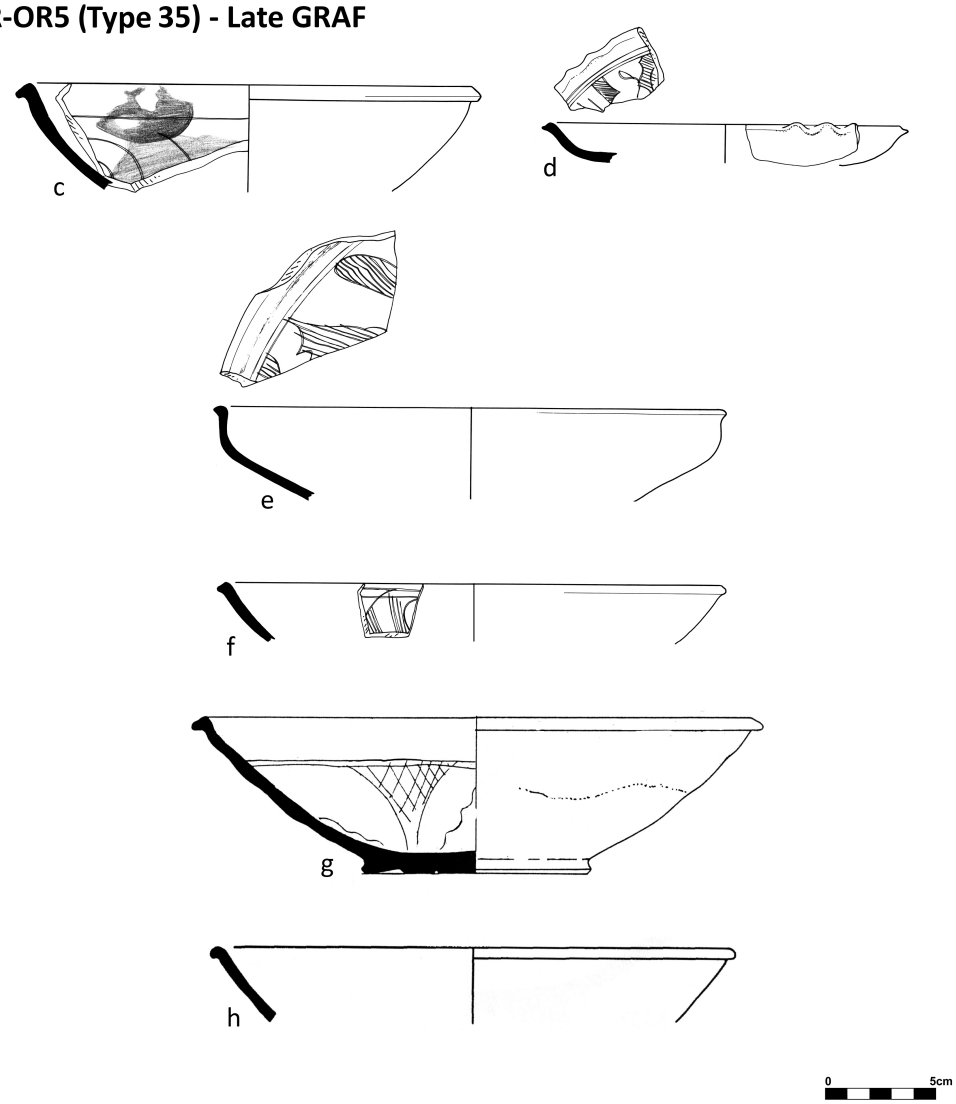
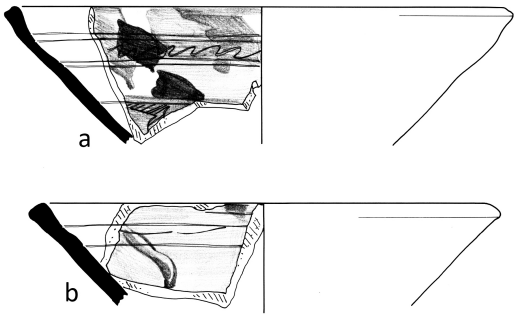


Figure 54 *a-b = SGR-OR4; c-h = SGR-OR5 (Type 35)*

Figure 54						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SGR-OR4	GRAF (Late)	Siraf		2007.6001,331	1:3
b	SGR-OR4	GRAF (Late)	Sohar	Kervran, 2004: fig. 34: 8	2201.12	1:3
c	SGR-OR5	GRAF (Late)	Siraf		2007.6001,4659	1:3
d	SGR-OR5	GRAF (Late)	Siraf		2007.6001,328	1:3
e	SGR-OR5	GRAF (Late)	Siraf		2007.6001,271	1:3
f	SGR-OR5	GRAF (Late)	Siraf		2007.6001,8852	1:3
g	SGR-OR5	GRAF (Late)	Sohar	Kervran, 2004: fig. 36: 12	2078.6	1:3
h	SGR-OR5	GRAF (Late)	Kush	Kennet, 2004: fig. 8	K918	1:3

SGR-OR6 - Late GRAF



SGR-OR7 - Late GRAF

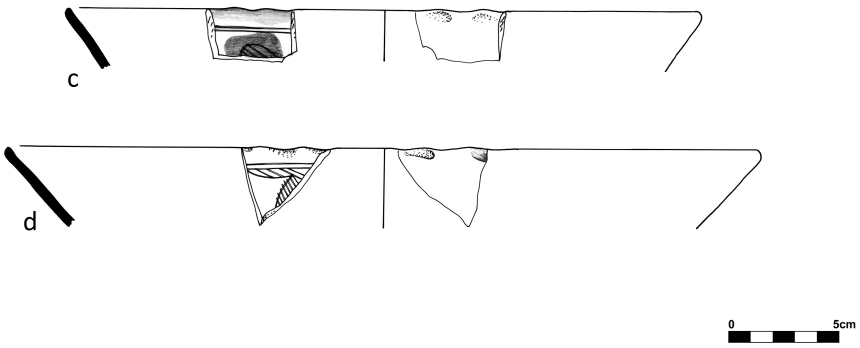


Figure 55 *a-b = SGR-OR6; c-d = SGR-OR7*

Figure 55						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SGR-OR6	GRAF (Late)	Siraf		2007.6001,2549	1:3
b	SGR-OR6	GRAF (Late)	Siraf		2007.6001,1872	1:3
c	SGR-OR7	GRAF (Late)	Siraf		2007.6001,2112	1:3
d	SGR-OR7	GRAF (Late)	Siraf		2007.6001,2115	1:3

SGR-OR9 (Type 26) - Late GRAF

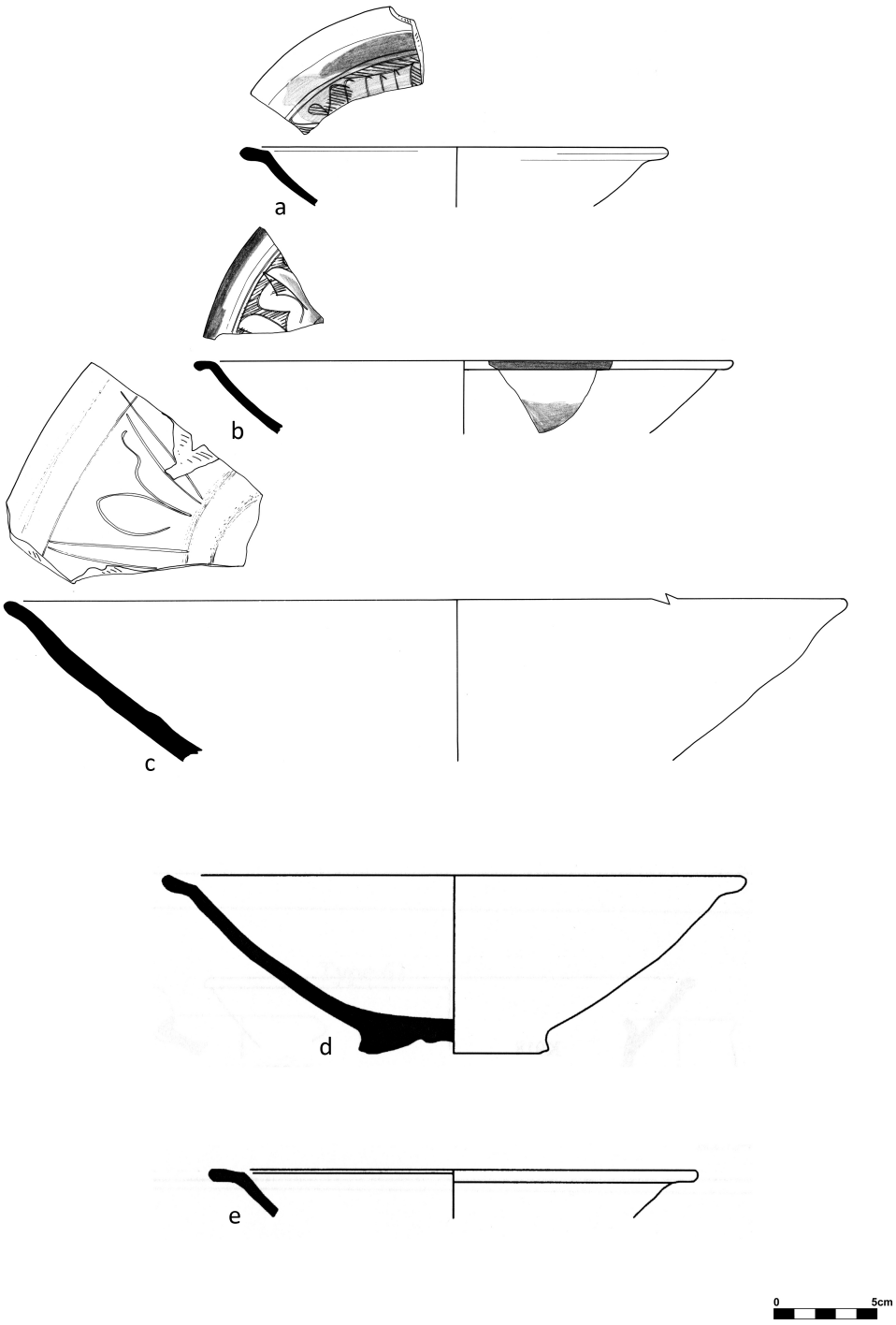
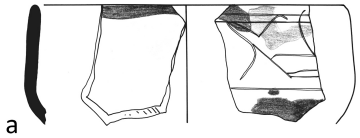
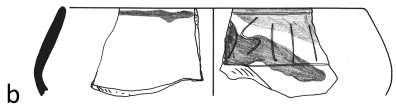


Figure 56 *a-e = SGR-OR9 (Type 26)*

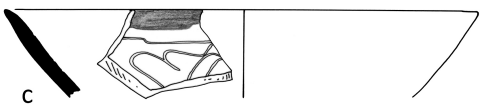
Figure 56						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SGR-OR9	GRAF (Late)	Siraf		2007.6001,8739	1:3
b	SGR-OR9	GRAF (Late)	Siraf		2007.6001,8970	1:3
c	SGR-OR9	GRAF (Late)	Siraf		2007.6001,4779	1:3
d	SGR-OR9	GRAF (Late)	Kush	Kennet, 2004: fig. 9	K733	1:3
e	SGR-OR9	GRAF (Late)	Kush	Kennet, 2004: fig. 9	K296	1:3

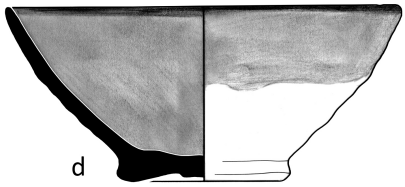
SGR-OR10 - Late GRAF

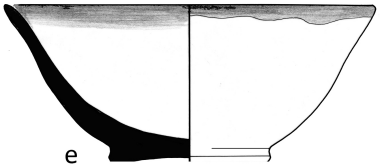




SGR-OR11 (Type 25) - Late GRAF







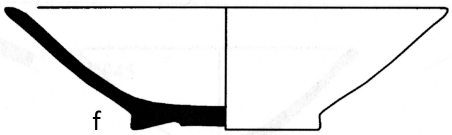
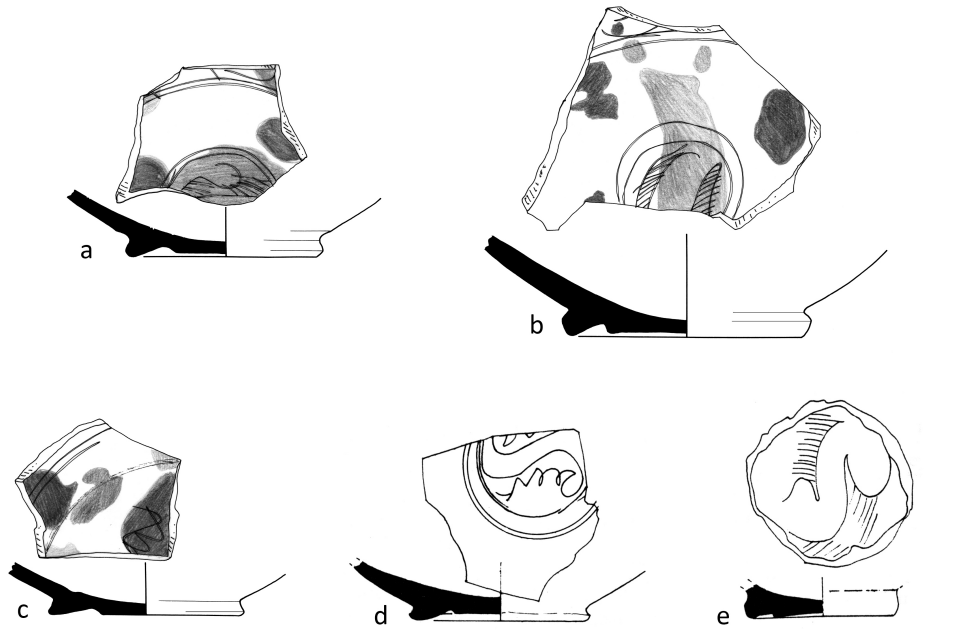


Figure 57 *a-b = SGR-OR10; c-f = SGR-OR11 (Type 25)*

Figure 57						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SGR-OR10	GRAF (Late)	Siraf		2007.6001,9202	1:3
b	SGR-OR10	GRAF (Late)	Siraf		2007.6001,7552	1:3
c	SGR-OR11	GRAF (Late)	Siraf		2007.6001,4624	1:3
d	SGR-OR11	GRAF (Late)	Siraf		2007.6001,2632	1:3
e	SGR-OR11	GRAF (Late)	Siraf		2007.6001,4927	1:3
f	SGR-OR11	GRAF (Late)	Kush	Kennet, 2004: fig. 9	K2472	1:3

SGR-B1 - Late GRAF



SGR-B2 - Late GRAF

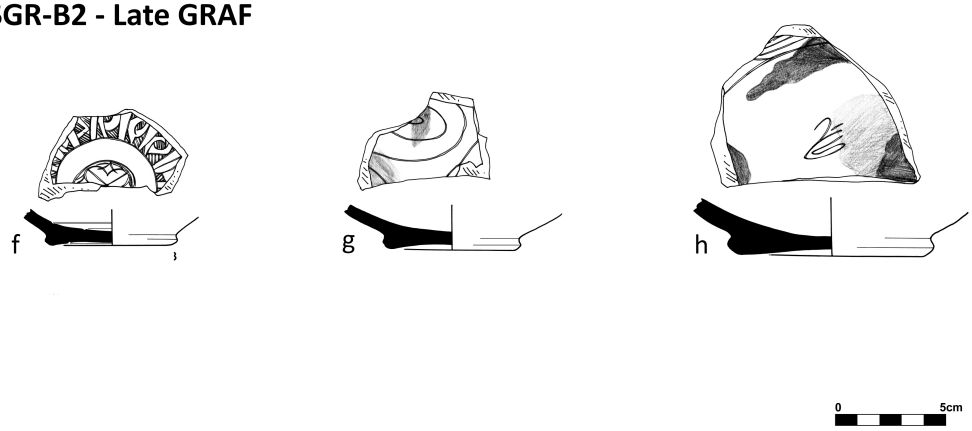


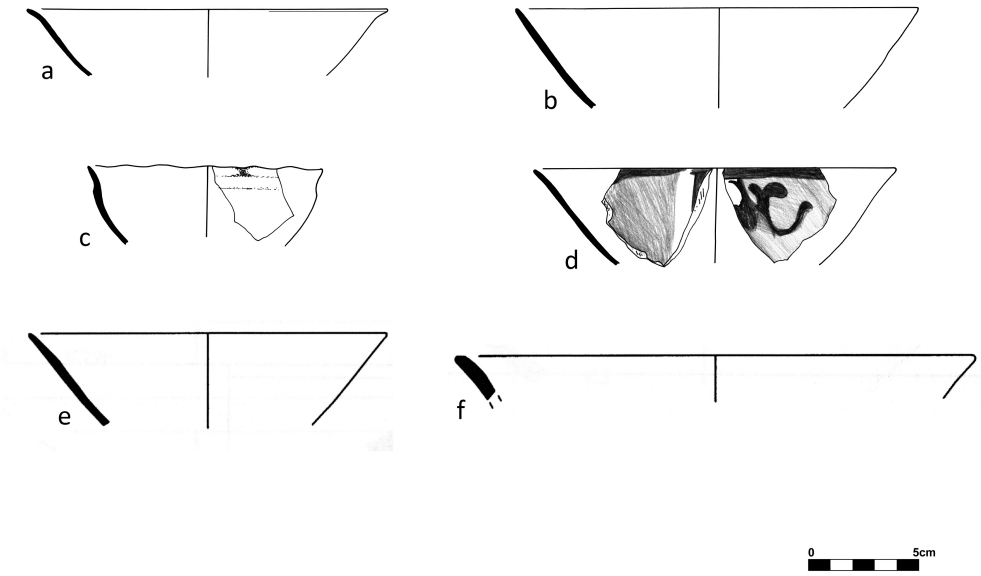
Figure 58 *a-e = SGR-B1; f-h = SGR-B2*

Figure 58						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SGR-B1	GRAF (Late)	Siraf		2007.6001,2109	1:3
b	SGR-B1	GRAF (Late)	Siraf		2007.6001,2208	1:3
c	SGR-B1	GRAF (Late)	Siraf		2007.6001,263	1:3
d	SGR-B1	GRAF (Late)	Sohar	Kervran, 2004: fig. 35: 2	2002.1	1:3
e	SGR-B1	GRAF (Late)	Sohar	Kervran, 2004: fig. 36: 11	2078.7	1:3
f	SGR-B2	GRAF (Late)	Siraf		2007.6001,9233	1:3
g	SGR-B2	GRAF (Late)	Siraf		2007.6001,266	1:3
h	SGR-B2	GRAF (Late)	Siraf		2007.6001,311	1:3

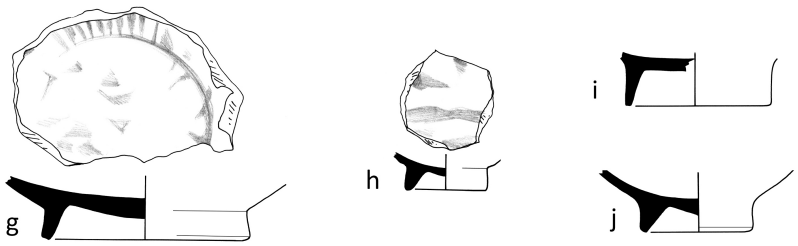
FRI – Frit-Bodied Glazed Ware

Type	Form	Class(es)	Illustration	Type Concordance	Description
FRI-OR1	Bowl	FRIT (Early)	Fig. 59: a-f	Kennet, 2004: Type 47	Straight, or gently everted, fine, pointed lip
FRI-B1	Bowl	FRIT (Early)	Fig. 59: g-j		Tall, narrow foot ring
FRI-B2	Bowl	FRIT (Late)	Fig. 59: k-l		Flared foot ring

FRI-OR1 - Early FRIT



FRI-B1 - Early FRIT



FRI-B2 - Late FRIT

Figure 59 *a-f = FRI-OR1 (Type 47); g-j = FRI-B1; k-l = FRI-B2*

Figure 59						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	FRI-OR1	FRIT (Early)	Siraf		2007.6001,2717	1:3
b	FRI-OR1	FRIT (Early)	Siraf		2007.6001,2540	1:3
c	FRI-OR1	FRIT (Early)	Siraf		2007.6001,5769	1:3
d	FRI-OR1	FRIT (Early)	Siraf		2007.6001,4707	1:3
e	FRI-OR1	FRIT (Early)	Kush	Kennet, 2004: fig. 9	K126	1:3
f	FRI-OR1	FRIT (Early)	Kush	Kennet, 2004: fig. 9	K1268	1:3
g	FRI-B1	FRIT (Early)	Siraf		2007.6001,4612	1:3
h	FRI-B1	FRIT (Early)	Siraf		2007.6001,4459	1:3
i	FRI-B1	FRIT (Early)	Siraf		2007.6001,6138	1:3
j	FRI-B1	FRIT (Early)	Siraf		2007.6001,2581	1:3
k	FRI-B2	FRIT (Late)	Siraf		2007.6001,6199	1:3
l	FRI-B2	FRIT (Late)	Siraf		2007.6001,2836	1:3

GGW – Gulf Glazed Wares

Type	Form	Class(es)	Illustration	Concordance	Description
GGW-OR1	Bowl	FRIT (Late)	Fig. 60: a-c	Kennet, 2004: Type 101	Straight flange rim
GGW-OR2	Bowl	MONO.LG2	Fig. 61: a-e		Straight, or gently everted, lip
GGW-OR3	Bowl	MONO.LG1-2	Fig. 61: f-i		Hemispherical bowl, with a pointed or rounded lip
GGW-OR4	Bowl	MONO.LG1	Fig. 62: a-d		Rounded, everted lip, with external recess
GGW-OR5	Bowl	MONO.LG1	Fig. 62: e-h		Pointed, out-turned lip
GGW-OR6	Bowl	MONO.LG1	Fig. 62: i-k		Flat-topped lip, with external recess
GGW-OR7	Bowl	MONO.LG1 MGPAINT-1	Fig. 63		Simple straight flange
GGW-OR8	Bowl	MGPAINT-1, REDYEL	Figs. 64; 65: a-c	Kennet, 2004: Types 26, 31, 104, 114	Recurved flange rim, imitation of LQC-OR1
GGW-OR9	Bowl	MONO.LG1	Fig. 65: d-g		Sharply turned, horizontal flange
GGW-OR10	Bowl	MONO.LG1	Fig. 66: a-d		Thickened, angled lip, with internal recess
GGW-OR11	Bowl	MONTUR	Fig. 66: e-f		Thickened lip, with slight internal recess
GGW-OR12	Bowl	MONO.LG1	Fig. 67: a-c		Folded and flattened lip
GGW-OR13	Bowl	MONO.LG1	Fig. 67: d-e		Thickened club rim, with slight recess in outer face
GGW-OR14	Bowl	MONO.LG1	Fig. 68		Folded rounded lip
GGW-OR15	Bowl	SPECLE#	Not illustrated		Gently everted lip
GGW-B1	Bowl	MGPAINT-1	Fig. 69: a-c		Heavy squared foot ring
GGW-B2	Bowl	MONO.LG2	Fig. 69: d-e		Flat pedestal base, with a turned depression inside the foot, and a stepped interior
GGW-B3	Bowl	MONO.LG1	Fig. 70: a-b		Flat pedestal base, with a turned depression inside the foot
GGW-B4	Bowl	MONO.LG1	Fig. 70: c-d		Flat pedestal base
GGW-B5	Bowl	MONO.LG1	Fig. 70: e		Simple flat base, not raised

GGW-OR1 - Late FRIT

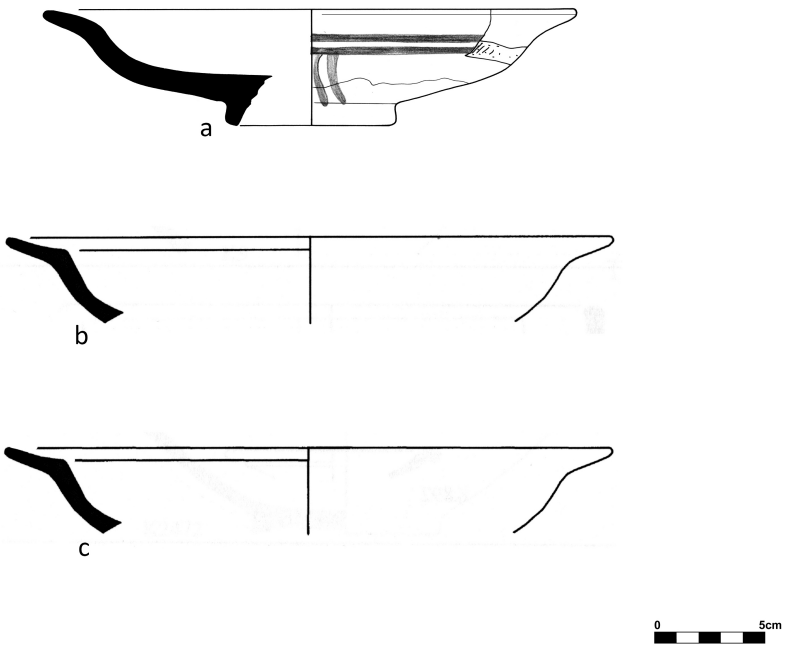
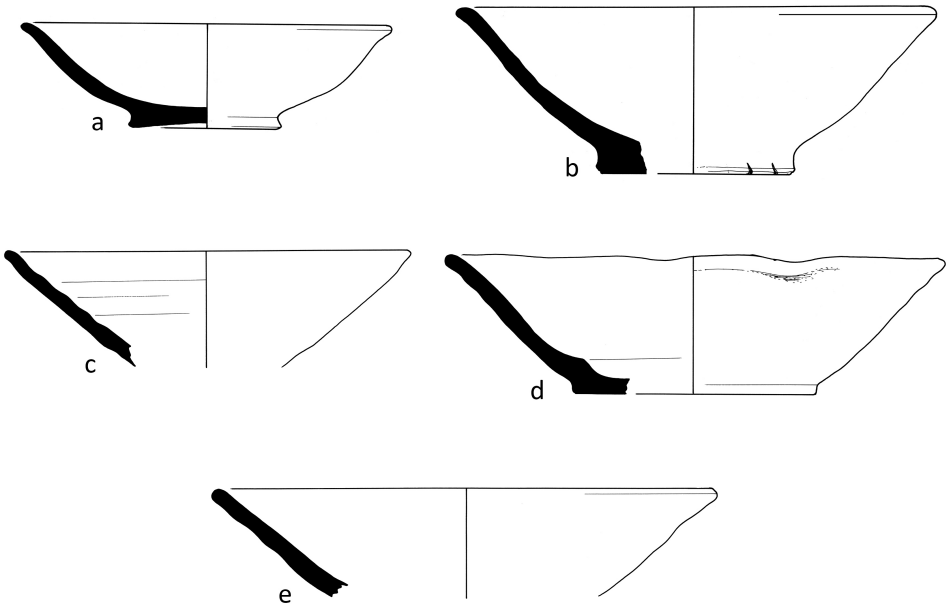


Figure 60 *a-c = GGW-OR1 (Type 101)*

Figure 60						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGW-OR1	FRIT (Late)	Siraf		2007.6001,5991	1:3
b	GGW-OR1	FRIT (Late)	Kush	Kennet, 2004: fig. 10		1:3
c	GGW-OR1	FRIT (Late)	Kush	Kennet, 2004: fig. 11		1:3

GGW-OR2 - MONO.LG2



GGW-OR3 - MONO.LG1-2

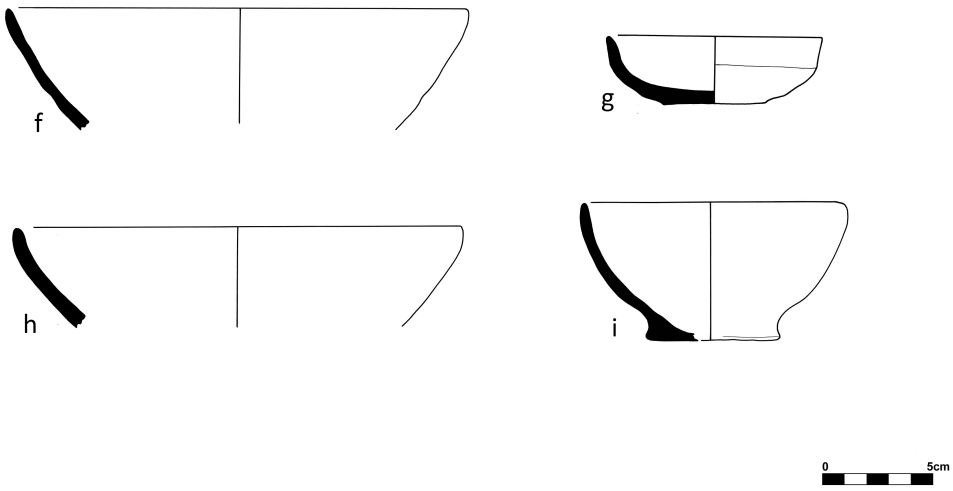
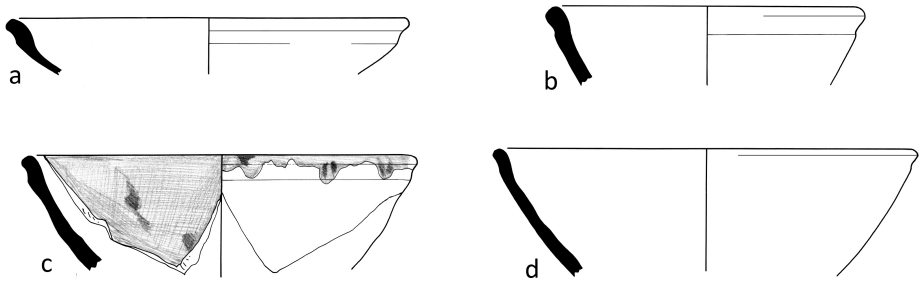


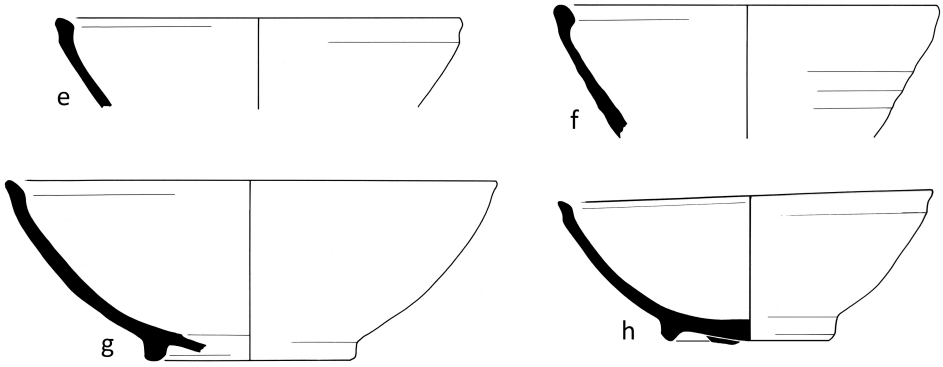
Figure 61 *a-e = GGW-OR2; f-i = GGW-OR3*

Figure 61						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGW-OR2	MONO.LG2	Siraf		2007.6001,6380	1:3
b	GGW-OR2	MONO.LG2	Siraf		2007.6001,5259	1:3
c	GGW-OR2	MONO.LG2	Siraf		2007.6001,7485	1:3
d	GGW-OR2	MONO.LG2	Siraf		2007.6001,6585	1:3
e	GGW-OR2	MONO.LG2	Siraf		2007.6001,6586	1:3
f	GGW-OR3	MONO.LG1	Siraf		2007.6001,6132	1:3
g	GGW-OR3	MONO.LG1	Siraf		2007.6001,5853	1:3
h	GGW-OR3	MONO.LG1	Siraf		2007.6001,6154	1:3
i	GGW-OR3	MONO.LG2	Siraf		2007.6001,8550	1:3

GGW-OR4 - MONO.LG1



GGW-OR5 - MONO.LG1



GGW-OR6 - MONO.LG1

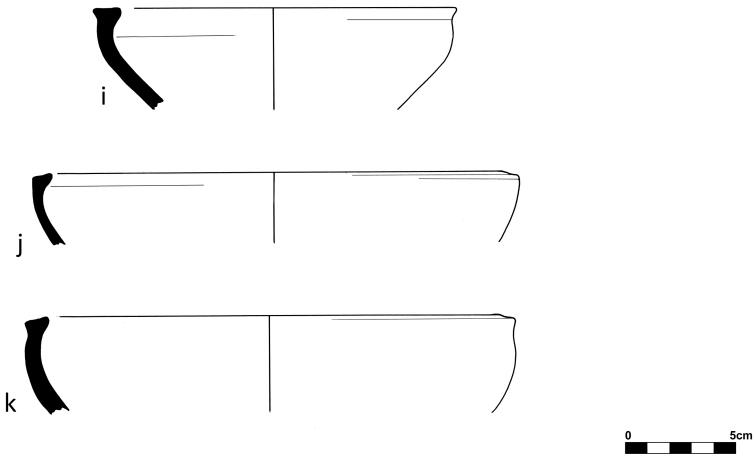


Figure 62 *a-d = GGW-OR4; e-h = GGW-OR5; i-k = GGW-OR6*

Figure 62						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGW-OR4	MONO.LG1	Siraf		2007.6001,3688	1:3
b	GGW-OR4	MONO.LG1	Siraf		2007.6001,6190	1:3
c	GGW-OR4	MONO.LG1	Siraf		2007.6001,4450	1:3
d	GGW-OR4	MONO.LG1	Siraf		2007.6001,6230	1:3
e	GGW-OR5	MONO.LG1	Siraf		2007.6001,4683	1:3
f	GGW-OR5	MONO.LG1	Siraf		2007.6001,3809	1:3
g	GGW-OR5	MONO.LG1	Siraf		2007.6001,2003	1:3
h	GGW-OR5	MONO.LG1	Siraf		2007.6001,2936	1:3
i	GGW-OR6	MONO.LG1	Siraf		2007.6001,6841	1:3
j	GGW-OR6	MONO.LG1	Siraf		2007.6001,6234	1:3
k	GGW-OR6	MONO.LG1	Siraf		2007.6001,81	1:3

GGW-OR7 - MONO.LG1, MGPAINT-1

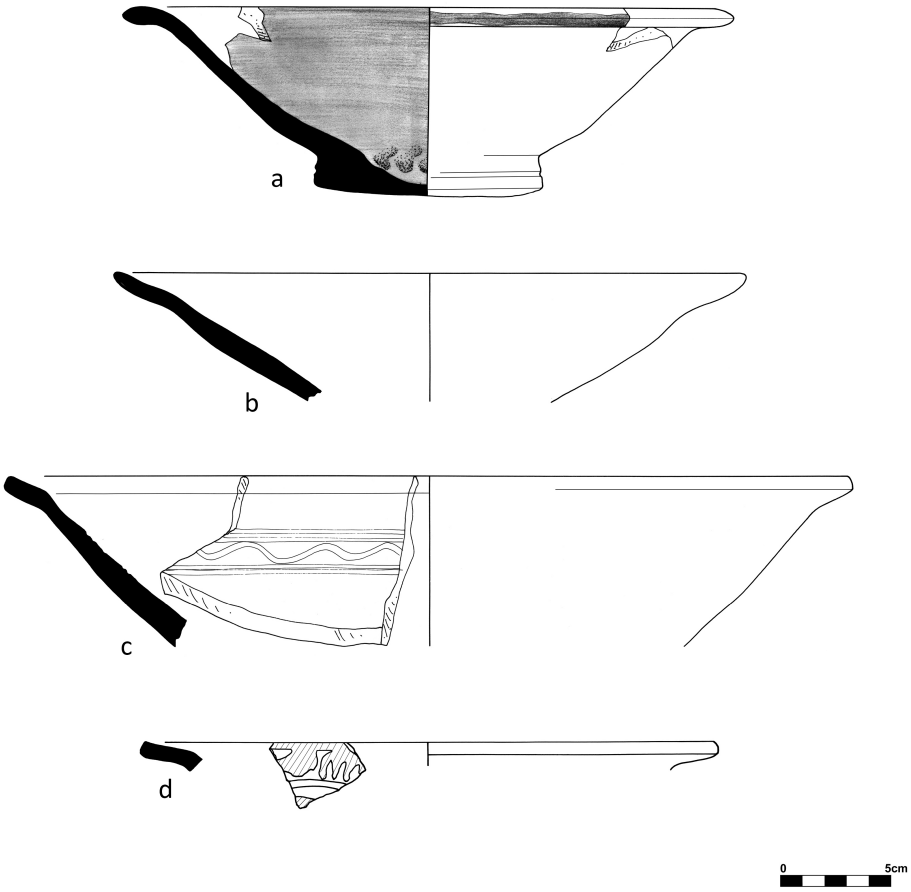


Figure 63 *a-d = GGW-OR7*

Figure 63						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGW-OR7	MONO.LG1	Siraf		2007.6001,3695	1:3
b	GGW-OR7	MONO.LG1	Siraf		2007.6001,7795	1:3
c	GGW-OR7	MONO.LG1	Siraf		2007.6001,4592	1:3
d	GGW-OR7	MGPAINT-1	Williamson/ SS		8111	1:3

GGW-OR8 - MGPAINT-1, REDYEL

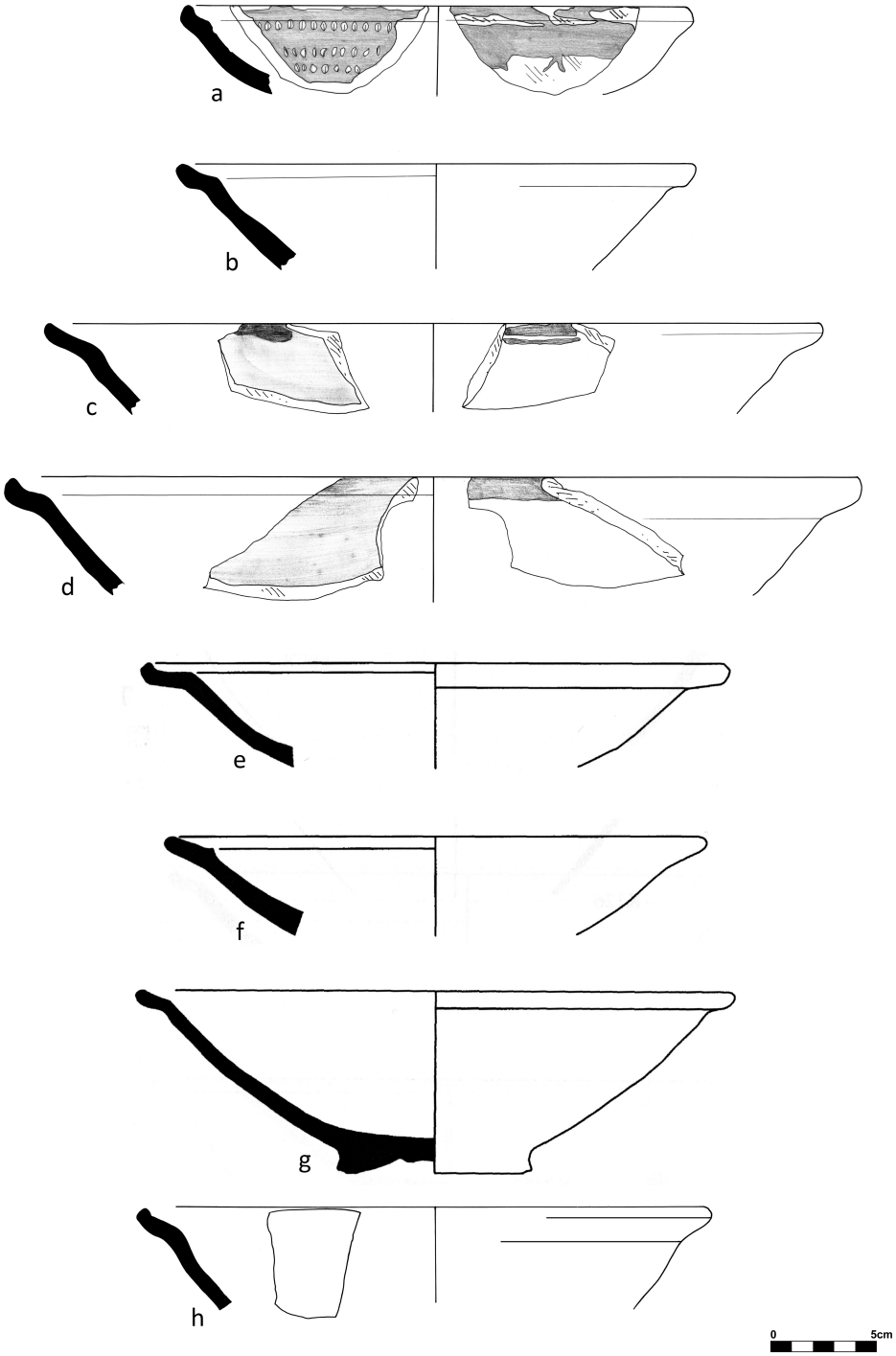
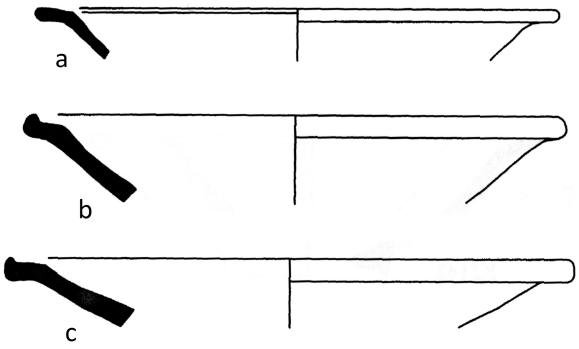


Figure 64 *a-h = GGW-OR8 (Types 26, 31, 104, 114)*

Figure 64						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGW-OR8	REDYEL	Siraf		2007.6001,9207	1:3
b	GGW-OR8	MGPAINT-1	Siraf		2007.6001,2723	1:3
c	GGW-OR8	MGPAINT-1	Siraf		2007.6001,6164	1:3
d	GGW-OR8	MGPAINT-1	Siraf		2007.6001,2383	1:3
e	GGW-OR8	MGPAINT-1	Kush	Kennet, 2004: fig. 11		1:3
f	GGW-OR8	MGPAINT-1	Kush	Kennet, 2004: fig. 11		1:3
g	GGW-OR8	MGPAINT-1	Kush	Kennet, 2004: fig. 9	K733	1:3
h	GGW-OR8	MGPAINT-1	Williamson/ A21B		108	1:3

GGW-OR8 - MGPAINT-1, REDYEL



GGW-OR9 - MONO.LG1

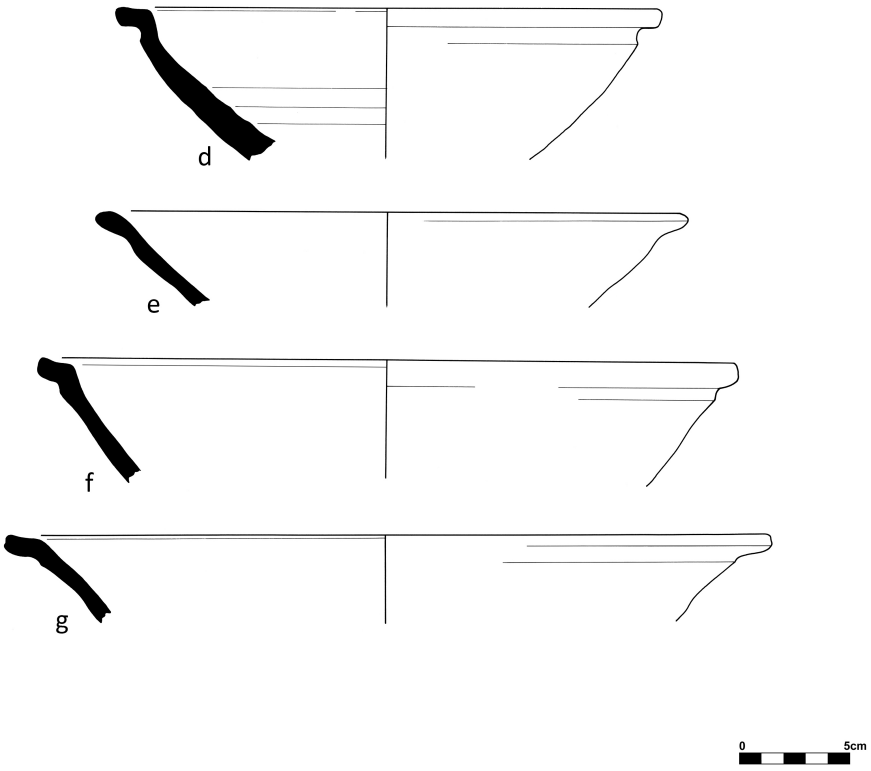
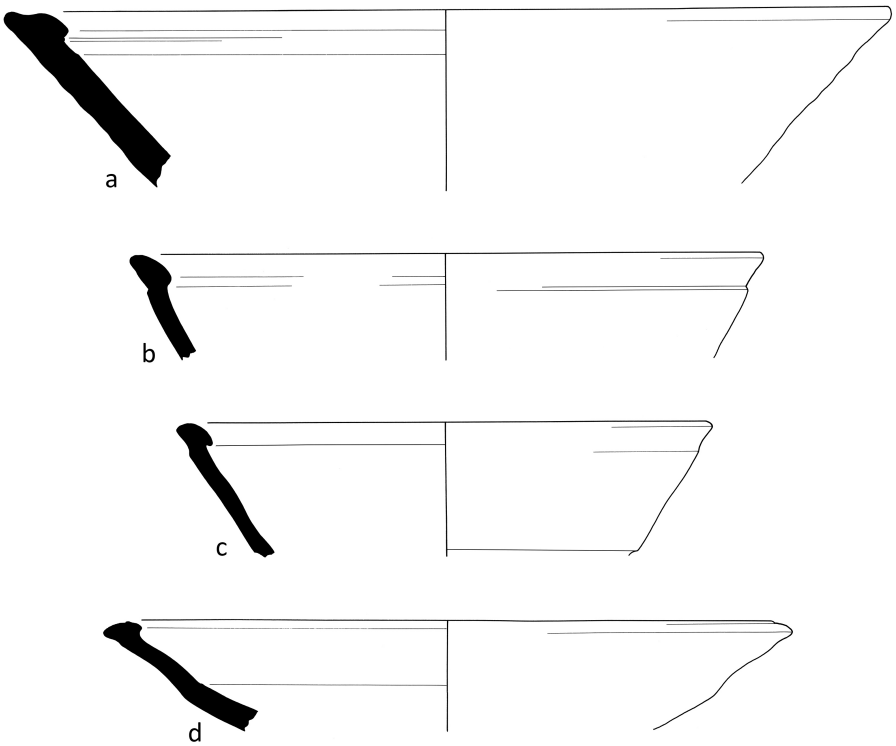


Figure 65 *a-c = GGW-OR8 (Types 26, 31, 104, 114); d-g = GGW-OR9*

Figure 65						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGW-OR8	MGPAINT-1	Kush	Kennet, 2004: fig. 12	K296	1:3
b	GGW-OR8	MGPAINT-1	Kush	Kennet, 2004: fig. 12	K5	1:3
c	GGW-OR8	MGPAINT-1	Kush	Kennet, 2004: fig. 12	K261	1:3
d	GGW-OR9	MONO.LG1	Siraf		2007.6001,3714	1:3
e	GGW-OR9	MONO.LG1	Siraf		2007.6001,3689	1:3
f	GGW-OR9	MONO.LG1	Siraf		2007.6001,4771	1:3
g	GGW-OR9	MONO.LG1	Siraf		2007.6001,3805	1:3

GGW-OR10 - MONO.LG1



GGW-OR11 - MONTUR

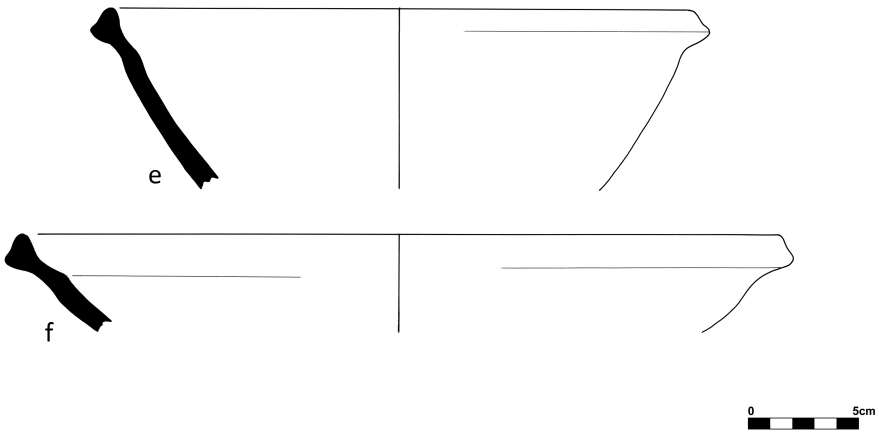
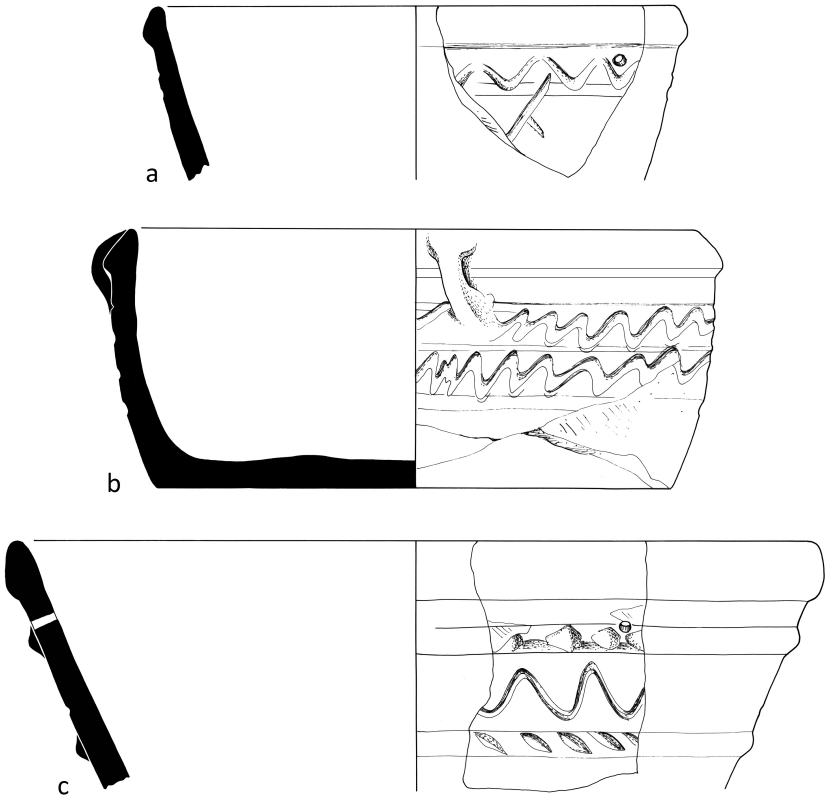


Figure 66 *a-d = GGW-OR10; e-f = GGW-OR11*

Figure 66						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGW-OR10	MONO.LG1	Siraf		2007.6001,5707	1:3
b	GGW-OR10	MONO.LG1	Siraf		2007.6001,8396	1:3
c	GGW-OR10	MONO.LG1	Siraf		2007.6001,5304	1:3
d	GGW-OR10	MONO.LG1	Siraf		2007.6001,5724	1:3
e	GGW-OR11	MONTUR	Siraf		2007.6001,6211	1:3
f	GGW-OR11	MONTUR	Siraf		2007.6001,6205	1:3

GGW-OR12 - MONO.LG1



GGW-OR13 - MONO.LG1

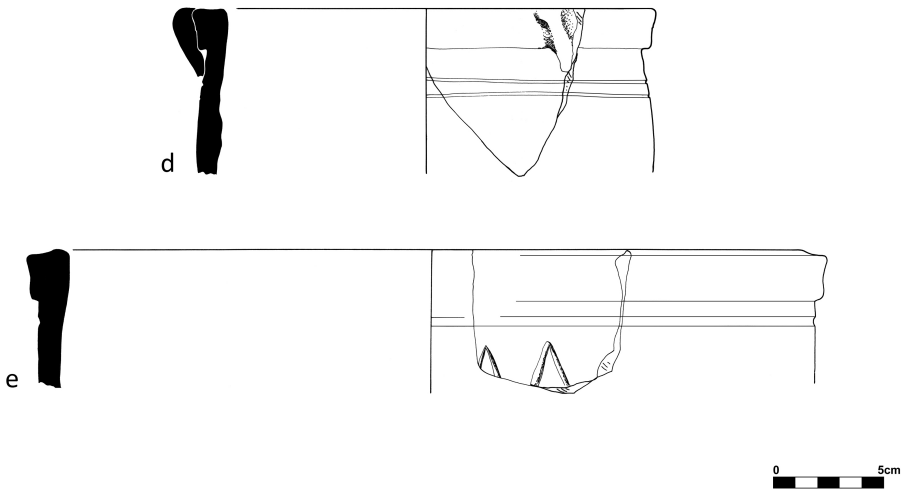


Figure 67 *a-c = GGW-OR12; d-e = GGW-OR13*

Figure 67						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGW-OR12	MONO.LG1	Siraf		2007.6001,53	1:3
b	GGW-OR12	MONO.LG1	Siraf		2007.6001,7676	1:3
c	GGW-OR12	MONO.LG1	Siraf		2007.6001,5865	1:3
d	GGW-OR13	MONO.LG1	Siraf		2007.6001,5755	1:3
e	GGW-OR13	MONO.LG1	Siraf		2007.6001,10	1:3

GGW-OR14 - MONO.LG1

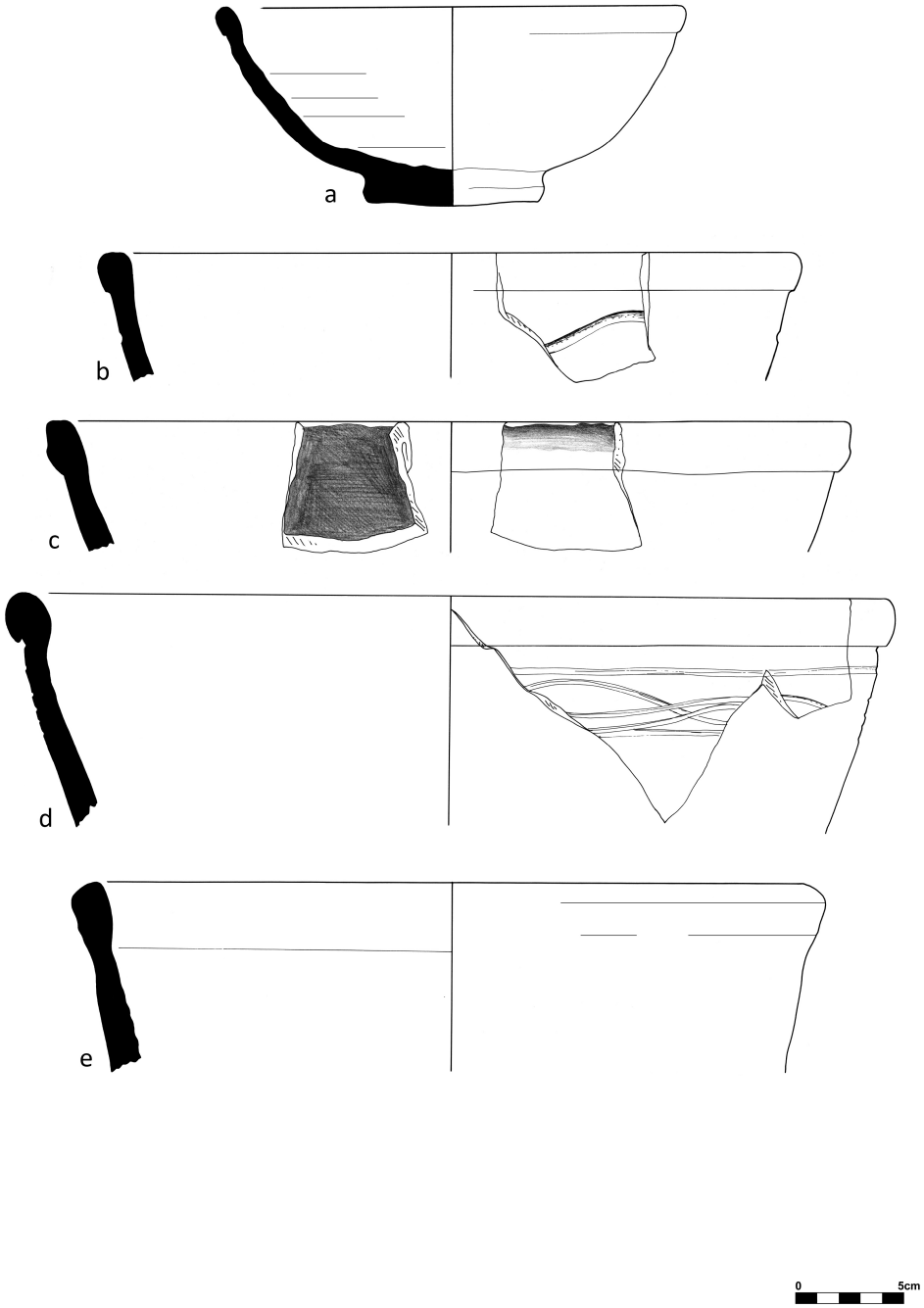
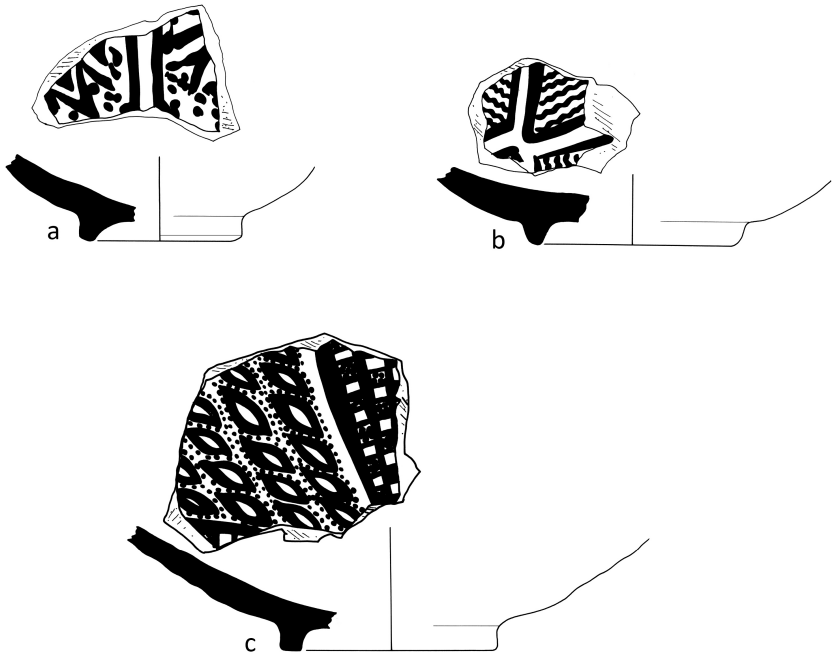


Figure 68 *a-e = GGW-OR14*

Figure 68						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGW-OR14	MONO.LG1	Siraf		2007.6001,2728	1:3
b	GGW-OR14	MONO.LG1	Siraf		2007.6001,5723	1:3
c	GGW-OR14	MONO.LG1	Siraf		2007.6001,3835	1:3
d	GGW-OR14	MONO.LG1	Siraf		2007.6001,2587	1:3
e	GGW-OR14	MONO.LG1	Siraf		2007.6001,2287	1:3

GGW-B1 - MGPAINT-1



GGW-B2 - MONO.LG2

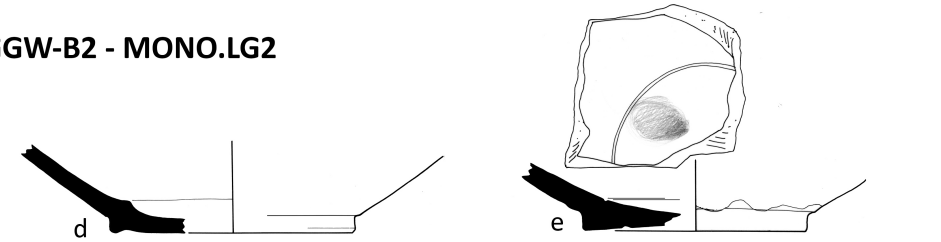
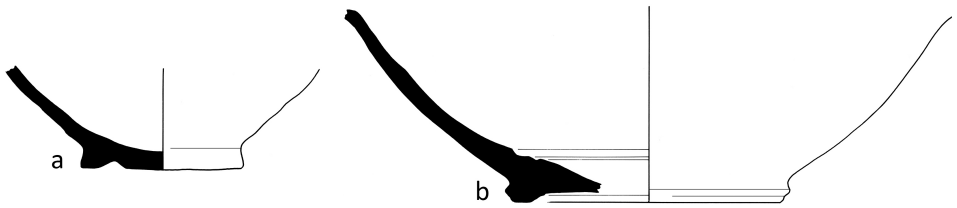


Figure 69 *a-c = GGW-B1; d-e = GGW-B2*

Figure 69						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGW-B1	MGPAINT-1	Siraf		2007.6001,179	1:3
b	GGW-B1	MGPAINT-1	Siraf		2007.6001,8804	1:3
c	GGW-B1	MGPAINT-1	Siraf		2007.6001,2384	1:3
d	GGW-B2	MONO.LG2	Siraf		2007.6001,6587	1:3
e	GGW-B2	MONO.LG2	Siraf		2007.6001,6690	1:3

GGW-B3 - MONO.LG1



GGW-B4 - MONO.LG1

GGW-B5 - MONO.LG1

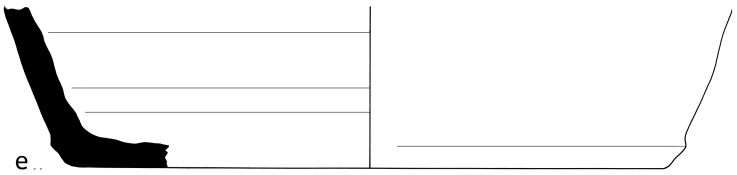


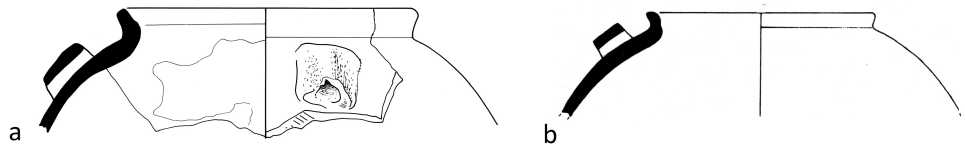
Figure 70 *a-b = GGW-B3; c-d = GGW-B4; e = GGW-B5*

Figure 70						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGW-B3	MONO.LG1	Siraf		2007.6001,85	1:3
b	GGW-B3	MONO.LG1	Siraf		2007.6001,4824	1:3
c	GGW-B4	MONO.LG1	Siraf		2007.6001,4644	1:3
d	GGW-B4	MONO.LG1	Siraf		2007.6001,3710	1:3
e	GGW-B5	MONO.LG1	Siraf		2007.6001,3832	1:3

SSV – Stoneware Storage Vessels

Type	Form	Class(es)	Illustration	Concordance	Description
SSV-CR1	Jar	STONE-BLU	Fig. 71: a-b		Everted 'S' profile rim, with a slightly recessed interior, and vertically aligned pierced handles attached to the shoulder
SSV-CR2	Storage Jar	STONE-BG1	Fig. 71: c-e		Wide mouth, with an everted collar neck
SSV-CR3	Storage Jar	DUSUN	Fig. 73	Priestman, 2005a: DUS: 01	Wide mouth, with a vertical, or slightly closed, collar neck, thick butterfly handles attached around the shoulder
SSV-CR4	Storage Jar	DUSUN	Fig. 74		Globular jar, with a rolled rim and butterfly handles attached around the shoulder
SSV-OR1	Bowl	DUSUN	Fig. 75		Rounded, clubbed rim, with recess below the outer lip
SSV-B1	Storage Jar	DUSUN, STONE-BG1	Fig. 72: a-e		Solid or slightly concave flat base
SSV-H1	Storage Jar	DUSUN, STONE-BG1-2	Fig. 72: f-i		Thick, horizontally aligned butterfly handle attached to the upper shoulder

SSV-CR1 - STONE-BLU



SSV-CR2 - STONE-BR1-2

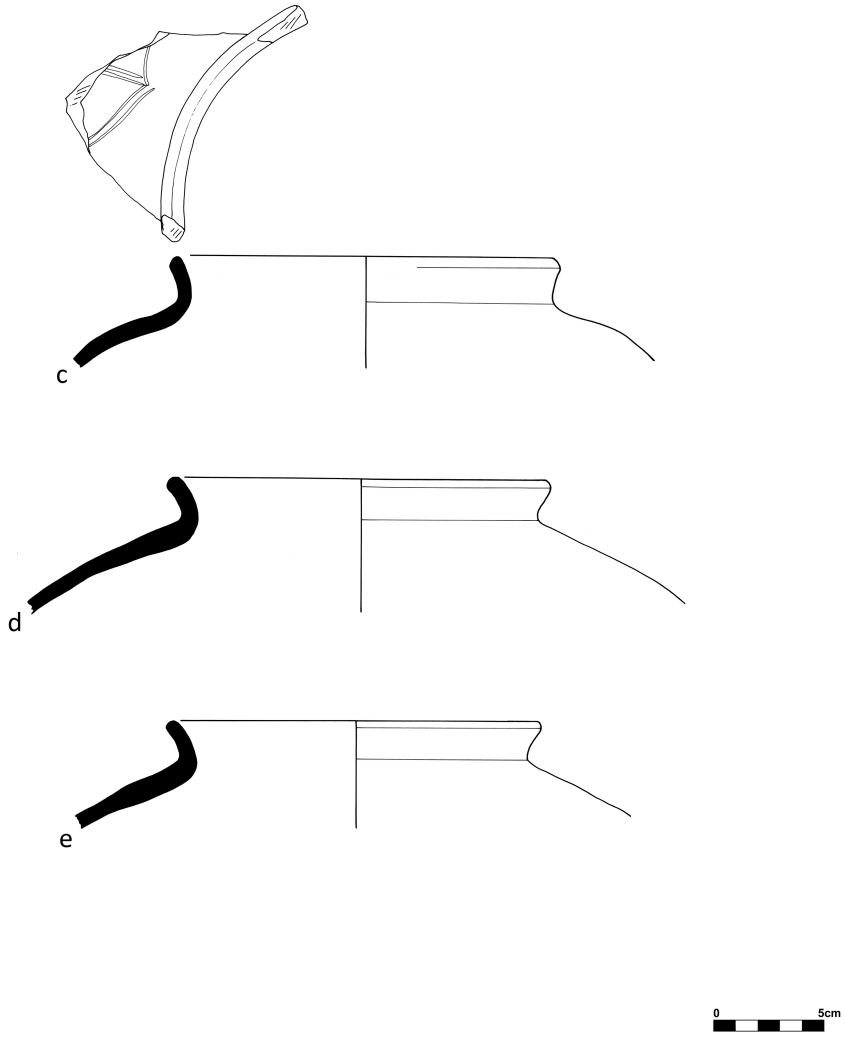
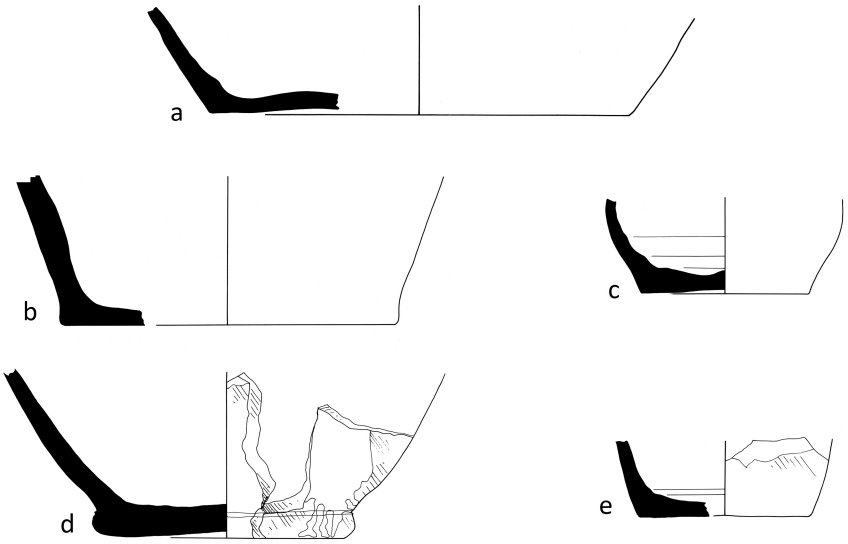


Figure 71 *a-b = SSV-CR1; c-e = SSV-CR2*

Figure 71						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SSV-CR1	STONE-BLU	Siraf		2007.6001,9024	1:3
b	SSV-CR1	STONE-BLU	Sohar	Kervran, 2004: fig. 37: 20	301	1:3
c	SSV-CR2	STONE-BG1	Siraf		2007.6001,2899	1:3
d	SSV-CR2	STONE-BG1	Siraf		2007.6001,2896	1:3
e	SSV-CR2	STONE-BG1	Siraf		2007.6001,2843	1:3

SSV-B1 - STONE-BG1, DUSUN



SSV-H1 - STONE-BG1-2

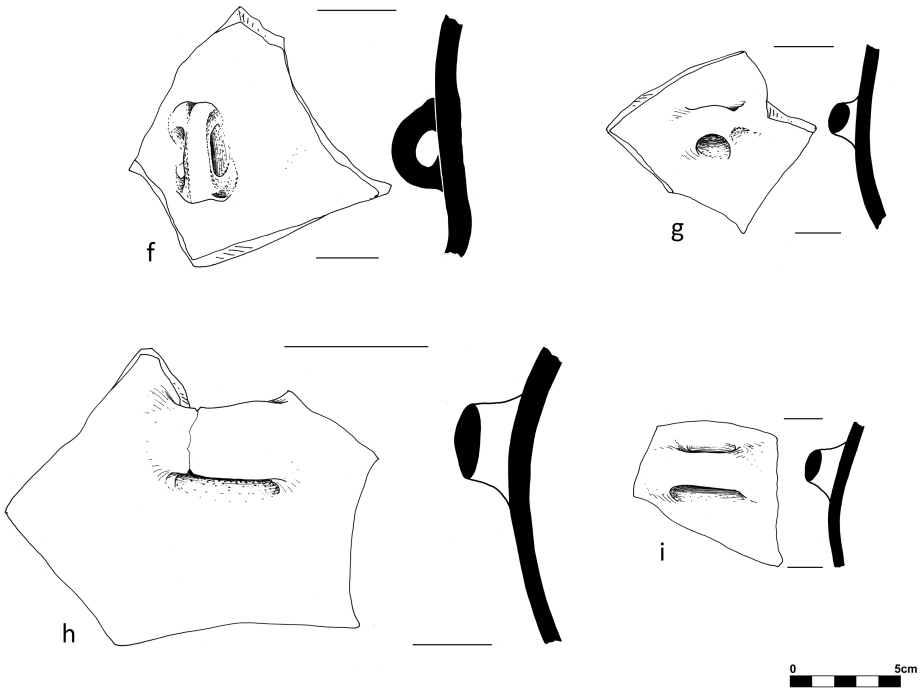


Figure 72 *a-e = SSV-B1; f-i = SSV-H1*

Figure 72						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SSV-B1	STONE-BG1	Siraf		2007.6001,2969	1:3
b	SSV-B1	DUSUN	Siraf		2007.6001,1607	1:3
c	SSV-B1	DUSUN	Siraf		2007.6001,2788	1:3
d	SSV-B1	DUSUN	Siraf		2007.6001,8321	1:3
e	SSV-B1	DUSUN	Siraf		2007.6001,9130	1:3
f	SSV-H1	STONE-BG2	Siraf		2007.6001,7642	1:3
g	SSV-H1	STONE-BG1	Siraf		2007.6001,8439	1:3
h	SSV-H1	STONE-BG1	Siraf		2007.6001,2877	1:3
i	SSV-H1	STONE-BG1	Siraf		2007.6001,2880	1:3

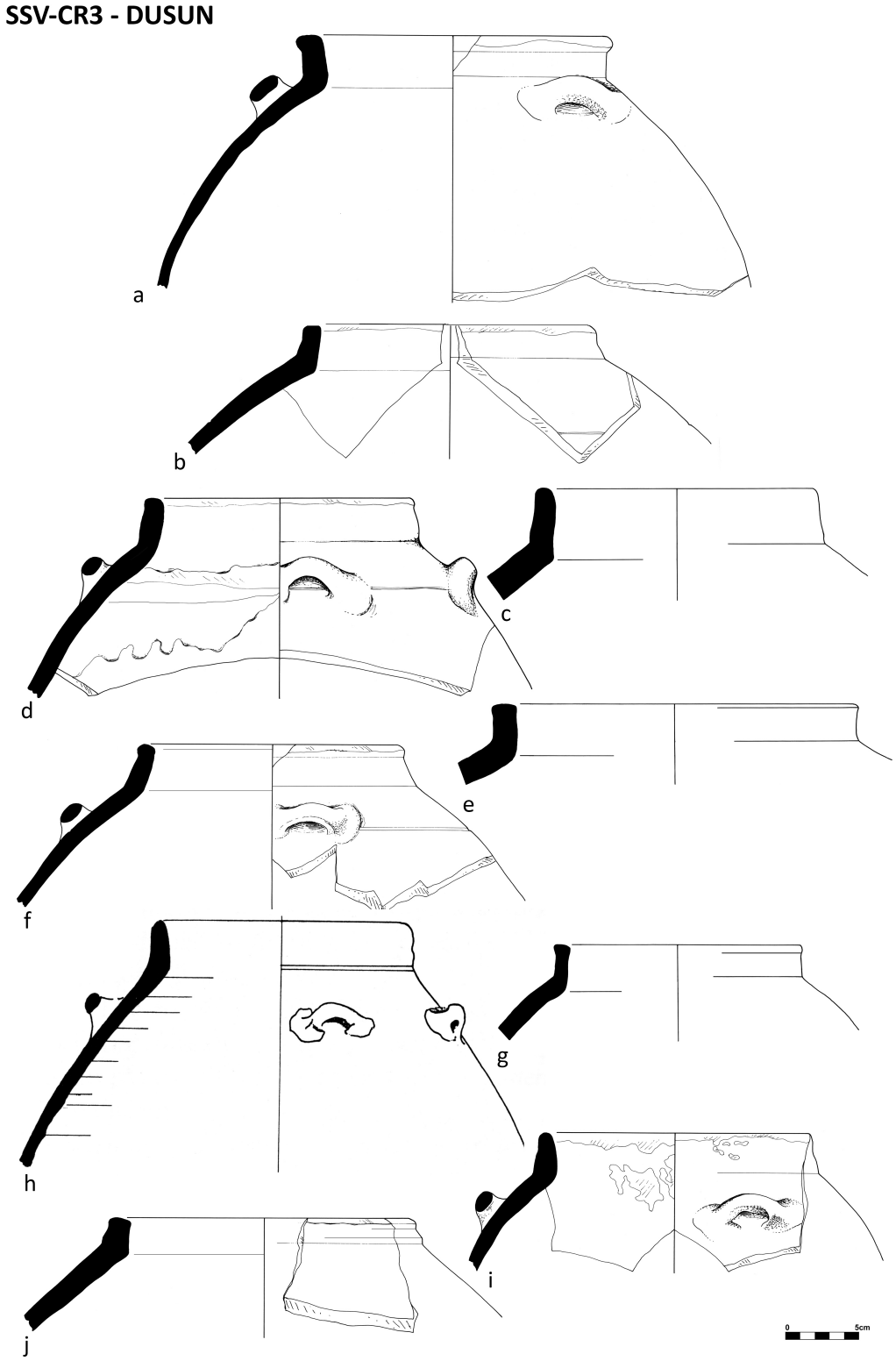


Figure 73 *a-j = SSV-CR3*

Figure 73						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SSV-CR3	DUSUN	Siraf		2007.6001,2886	1:4
b	SSV-CR3	DUSUN	Siraf		2007.6001,2779	1:4
c	SSV-CR3	DUSUN	Williamson/ B20A		13353	1:4
d	SSV-CR3	DUSUN	Siraf		2007.6001,6745	1:4
e	SSV-CR3	DUSUN	Williamson/ P1E		13363	1:4
f	SSV-CR3	DUSUN	Siraf		2007.6001,5207	1:4
g	SSV-CR3	DUSUN	Williamson/ AE2		11658	1:4
h	SSV-CR3	DUSUN	Sohar	Kervran, 2004: fig. 24		1:4
i	SSV-CR3	DUSUN	Siraf		2007.6001,4926	1:4
j	SSV-CR3	DUSUN	Siraf		2007.6001,184	1:4

SSV-CR4 - DUSUN

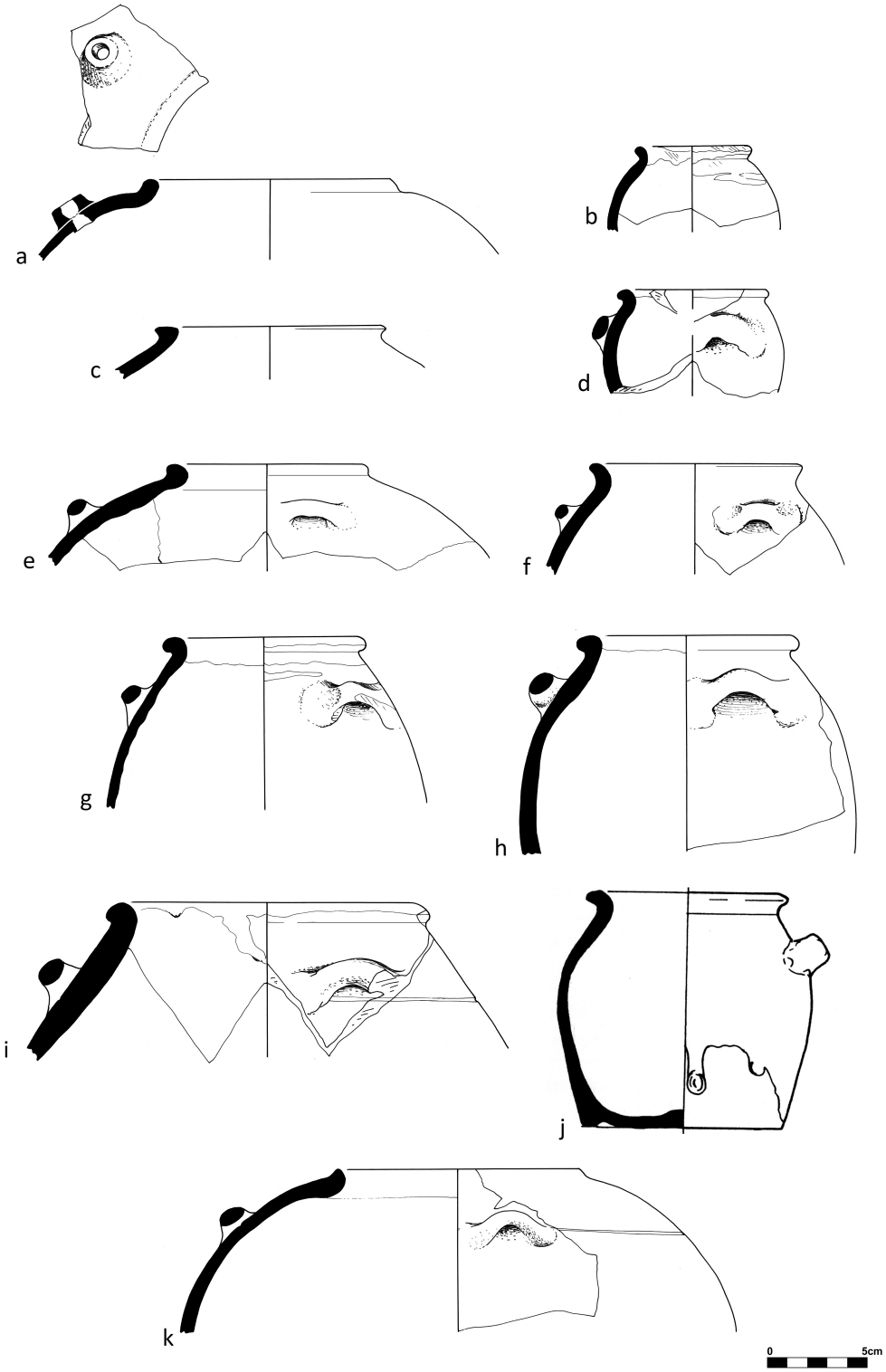


Figure 74 *a-k = SSV-CR4*

Figure 74						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SSV-CR4	DUSUN	Siraf		2007.6001,4928	1:3
b	SSV-CR4	DUSUN	Siraf		2007.6001,8471	1:3
c	SSV-CR4	DUSUN	Siraf		2007.6001,9005	1:3
d	SSV-CR4	DUSUN	Siraf		2007.6001,9212	1:3
e	SSV-CR4	DUSUN	Siraf		2007.6001,6180	1:3
f	SSV-CR4	DUSUN	Siraf		2007.6001,5351	1:3
g	SSV-CR4	DUSUN	Siraf		2007.6001,9218	1:3
h	SSV-CR4	DUSUN	Siraf		2007.6001,2798	1:3
i	SSV-CR4	DUSUN	Siraf		2007.6001,2165	1:3
j	SSV-CR4	DUSUN	Sohar	Kervran, 2004: fig. 23 bis: 13	606.3	1:3
k	SSV-CR4	DUSUN	Siraf		2007.6001,7014	1:3

SSV-OR1 - DUSUN

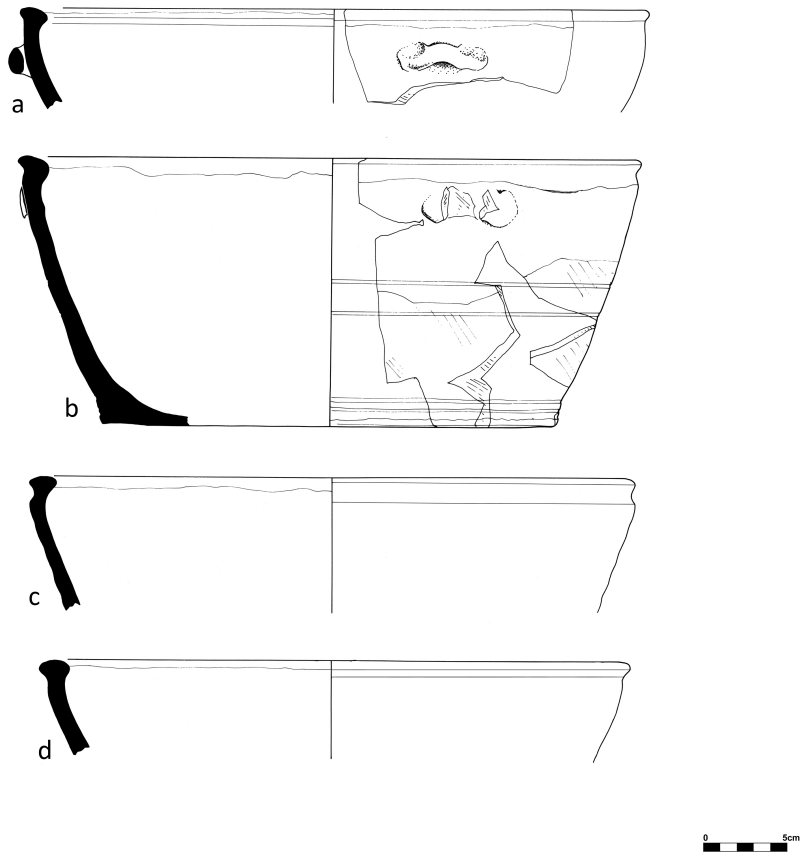


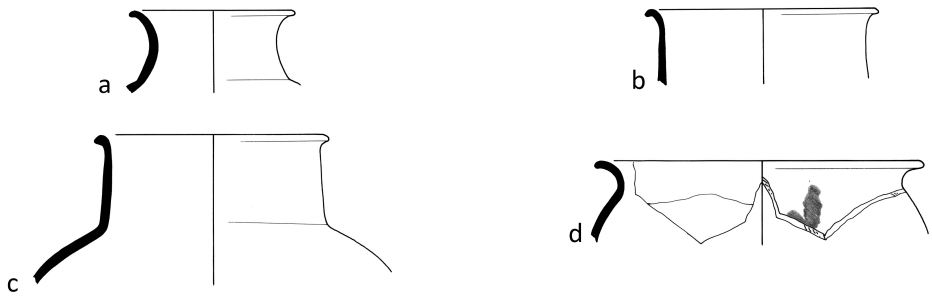
Figure 75 *a-d = SSV-OR1*

Figure 75						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	SSV-OR1	DUSUN	Siraf		2007.6001,8679	1:4
b	SSV-OR1	DUSUN	Siraf		2007.6001,8347	1:4
c	SSV-OR1	DUSUN	Siraf		2007.6001,9021	1:4
d	SSV-OR1	DUSUN	Siraf		2007.6001,6931	1:4

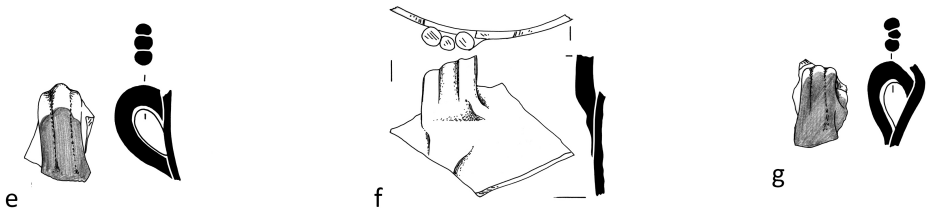
CHA – Changsha Painted Stoneware

Type	Form	Class(es)	Illustration	Concordance	Description
CHA-OR1	Bowl	CHANG	Fig. 78		Straight lip, hemispherical bowl
CHA-OR2	Bowl	CHANG	Fig. 79	Priestman, 2005a: CHA: 01	Slightly everted lip
CHA-CR1	Wine Jar	CHANG	Fig. 76: a-d		Necked jar with an everted lip
CHA-B1	Wine Jar	CHANG	Fig. 77: e-h		Flat base, often with a slight turned recess to accentuate the foot
CHA-B2	Bowl	CHANG	Fig. 80: a-d		Bi-disc base, flat turned root ring, with a concave depression in the centre
CHA-B3	Bowl	CHANG	Fig. 80: e-o		Squared foot ring
CHA-H1	Wine Jar	CHANG	Fig. 76: e-g		Short, looped, strap handle, formed with three connected coils
CHA-SP1	Wine Jar	CHANG	Fig. 76: h-i		Short spout with faceted sides
CHA-SP2	Wine Jar	CHANG	Fig. 76: j		Short rounded spout
CHA-F1	Wine Jar	CHANG	Fig. 77: a-d		Applique decoration floated and attached to the glaze

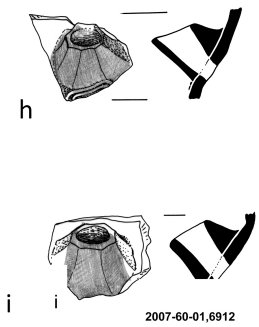
CHA-CR1 - CHANG



CHA-H1 - CHANG



CHA-SP1 - CHANG



CHA-SP2 - CHANG

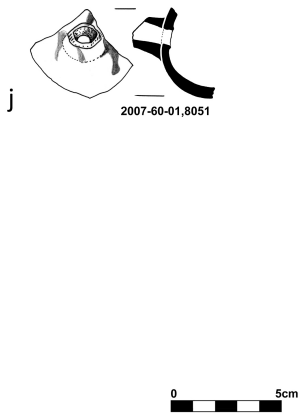
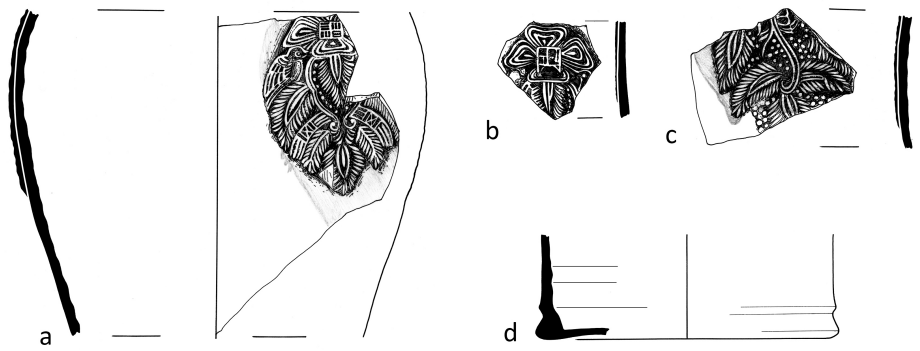


Figure 76 *a-d = CHA-CR1; e-g = CHA-H1; h-i = CHA-SP1; j = CHA-SP2*

Figure 76						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	CHA-CR1	CHANG	Siraf		2007.6001,1321	1:3
b	CHA-CR1	CHANG	Siraf		2007.6001,4997	1:3
c	CHA-CR1	CHANG	Siraf		2007.6001,4994	1:3
d	CHA-CR1	CHANG	Siraf		2007.6001,5322	1:3
e	CHA-H1	CHANG	Siraf		2007.6001,8628	1:3
f	CHA-H1	CHANG	Siraf		2007.6001,935	1:3
g	CHA-H1	CHANG	Siraf		2007.6001,6503	1:3
h	CHA-SP1	CHANG	Siraf		2007.6001,1320	1:3
i	CHA-SP1	CHANG	Siraf		2007.6001,6912	1:3
j	CHA-SP2	CHANG	Siraf		2007.6001,8051	1:3

CHA-F1 - CHANG



CHA-B1 - CHANG

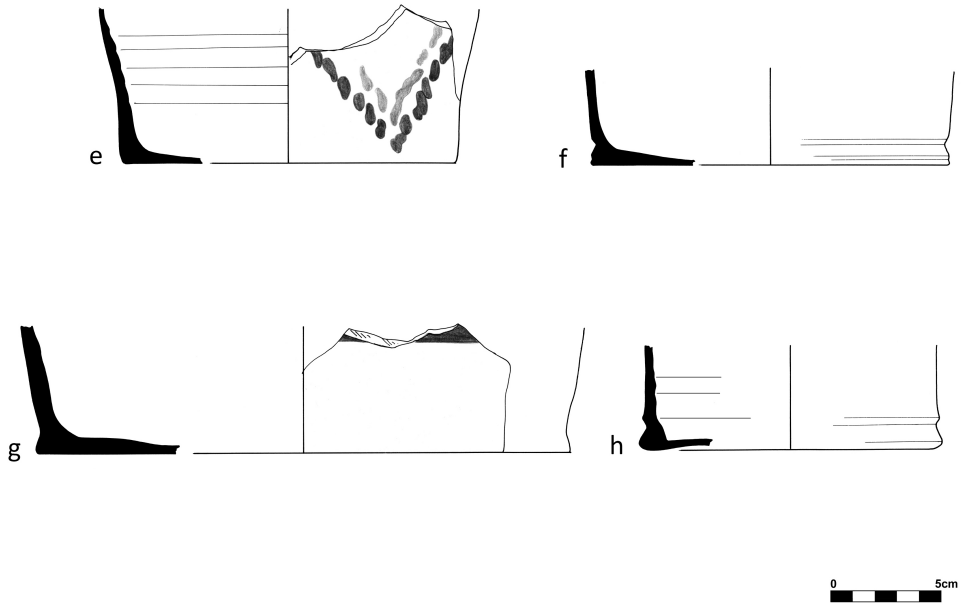


Figure 77 *a-d = CHA-F1; e-h = CHA-B1*

Figure 77						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	CHA-F1	CHANG	Siraf		2007.6001,9468	1:3
b	CHA-F1	CHANG	Siraf		2007.6001,2839	1:3
c	CHA-F1	CHANG	Siraf		2007.6001,8626	1:3
d	CHA-B1	CHANG	Siraf		2007.6001,9096	1:3
e	CHA-B1	CHANG	Siraf		2007.6001,8600	1:3
f	CHA-B1	CHANG	Siraf		2007.6001,8601	1:3
g	CHA-B1	CHANG	Siraf		2007.6001,8675	1:3

CHA-OR1 - CHANG

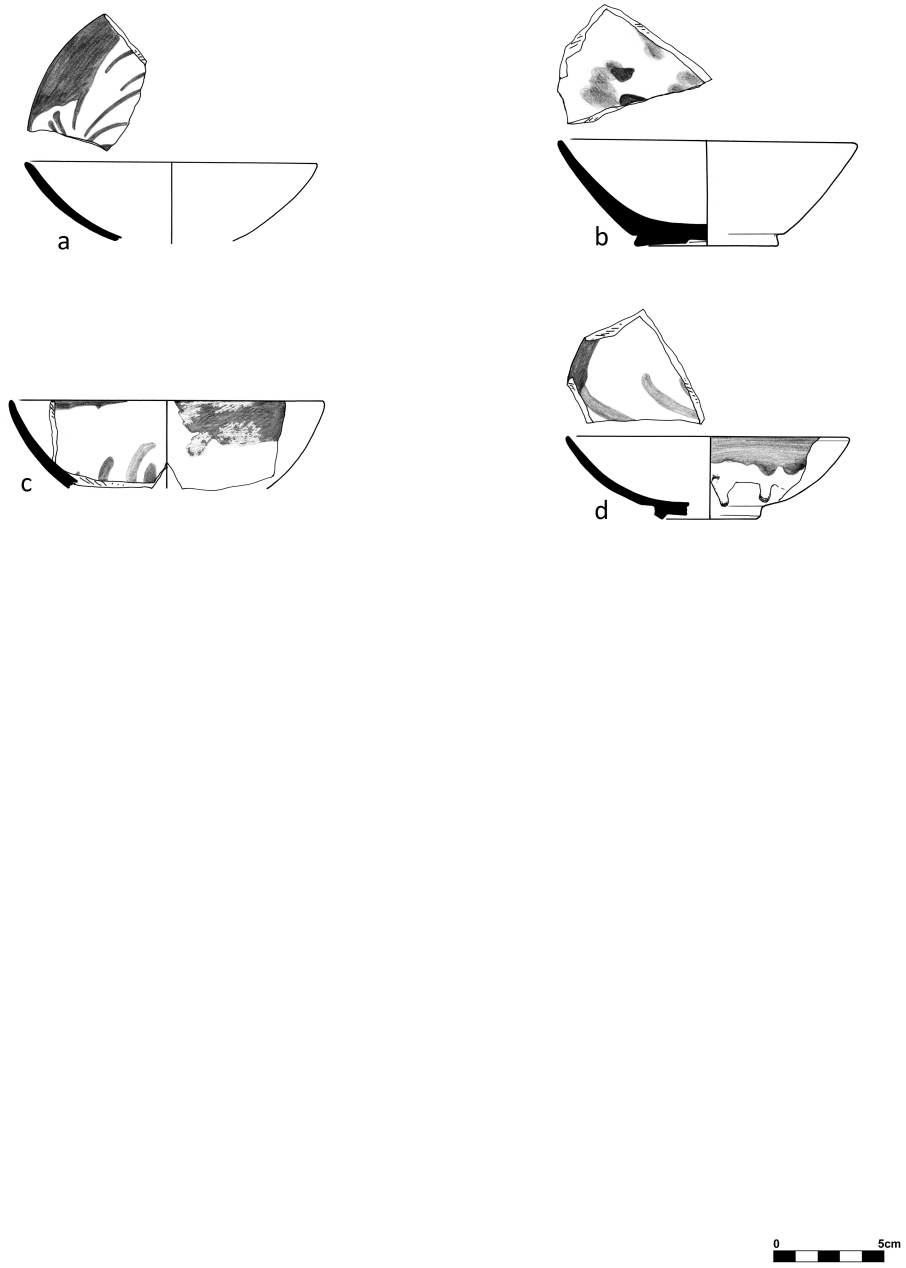


Figure 78 *a-j = CHA-OR1*

Figure 78						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	CHA-OR1	CHANG	Siraf		2007.6001,8457	1:3
b	CHA-OR1	CHANG	Siraf		2007.6001,3676	1:3
c	CHA-OR1	CHANG	Siraf		2007.6001,664	1:3
d	CHA-OR1	CHANG	Siraf		2007.6001,5325	1:3

CHA-OR2 - CHANG

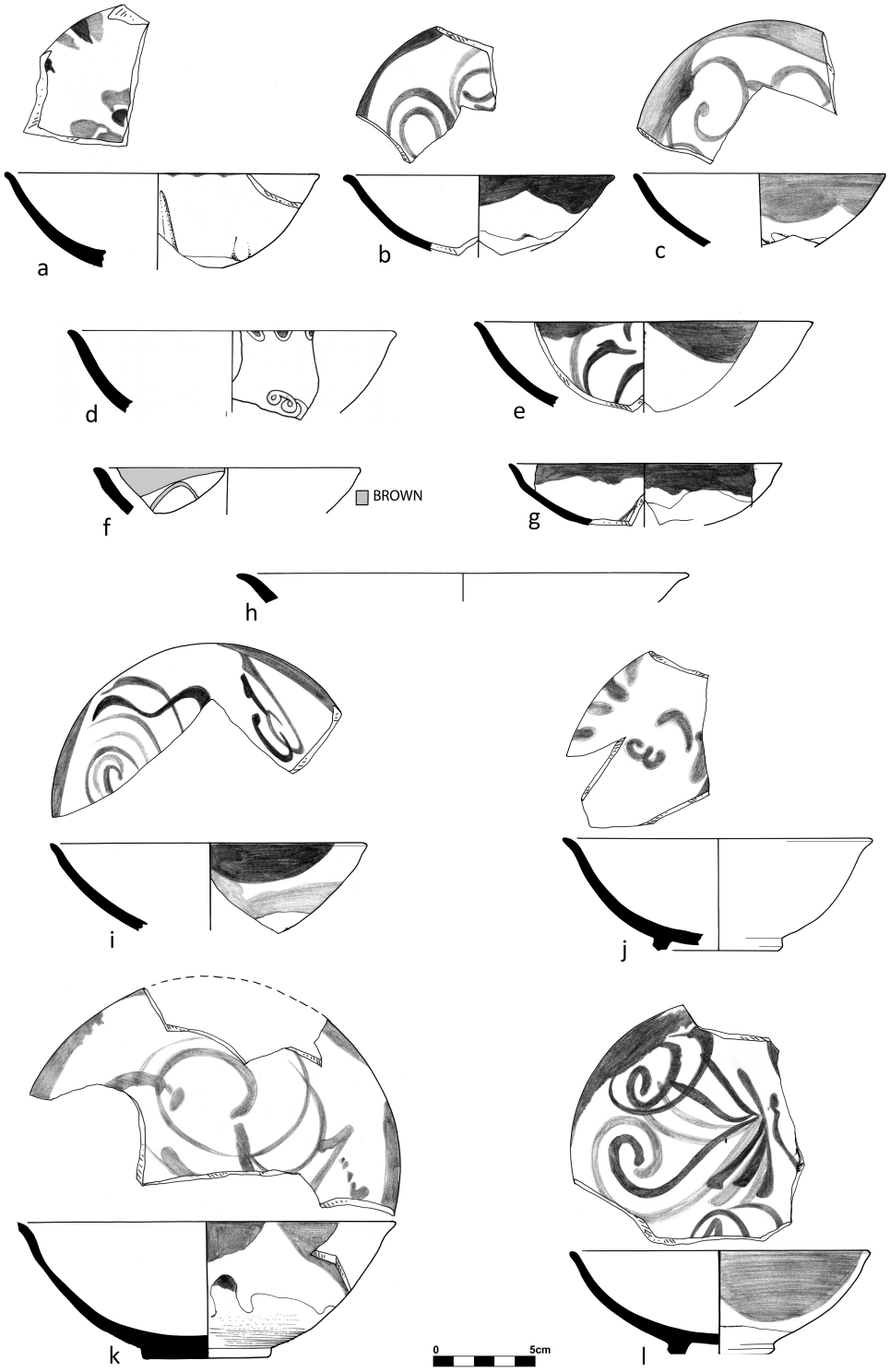
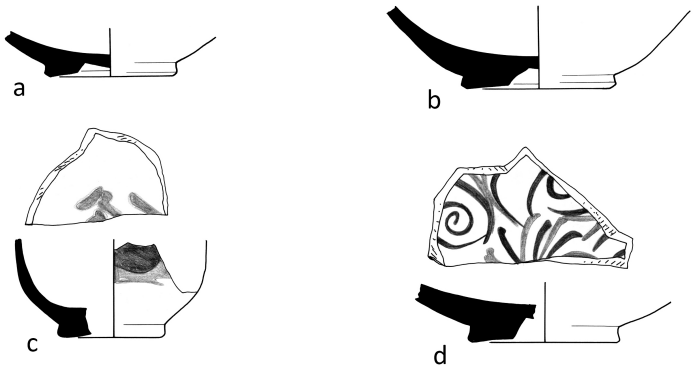


Figure 79 *a-l = CHA-OR2*

Figure 79						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	CHA-OR2	CHANG	Siraf		2007.6001,2909	1:3
b	CHA-OR2	CHANG	Siraf		2007.6001,3109	1:3
c	CHA-OR2	CHANG	Siraf		2007.6001,5004	1:3
d	CHA-OR2	CHANG	Unguja Ukuu		UU14/1423N	1:3
e	CHA-OR2	CHANG	Siraf		2007.6001,7007	1:3
f	CHA-OR2	CHANG	Williamson/ B17		12847	1:3
g	CHA-OR2	CHANG	Siraf		2007.6001,8655	1:3
h	CHA-OR2	CHANG	Williamson/ F10		12854	1:3
i	CHA-OR2	CHANG	Siraf		2007.6001,8111	1:3
j	CHA-OR2	CHANG	Siraf		2007.6001,9834	1:3
k	CHA-OR2	CHANG	Siraf		2007.6001,6824	1:3
l	CHA-OR2	CHANG	Siraf		2007.6001,2688	1:3

CHA-B2 - CHANG



CHA-B3 - CHANG

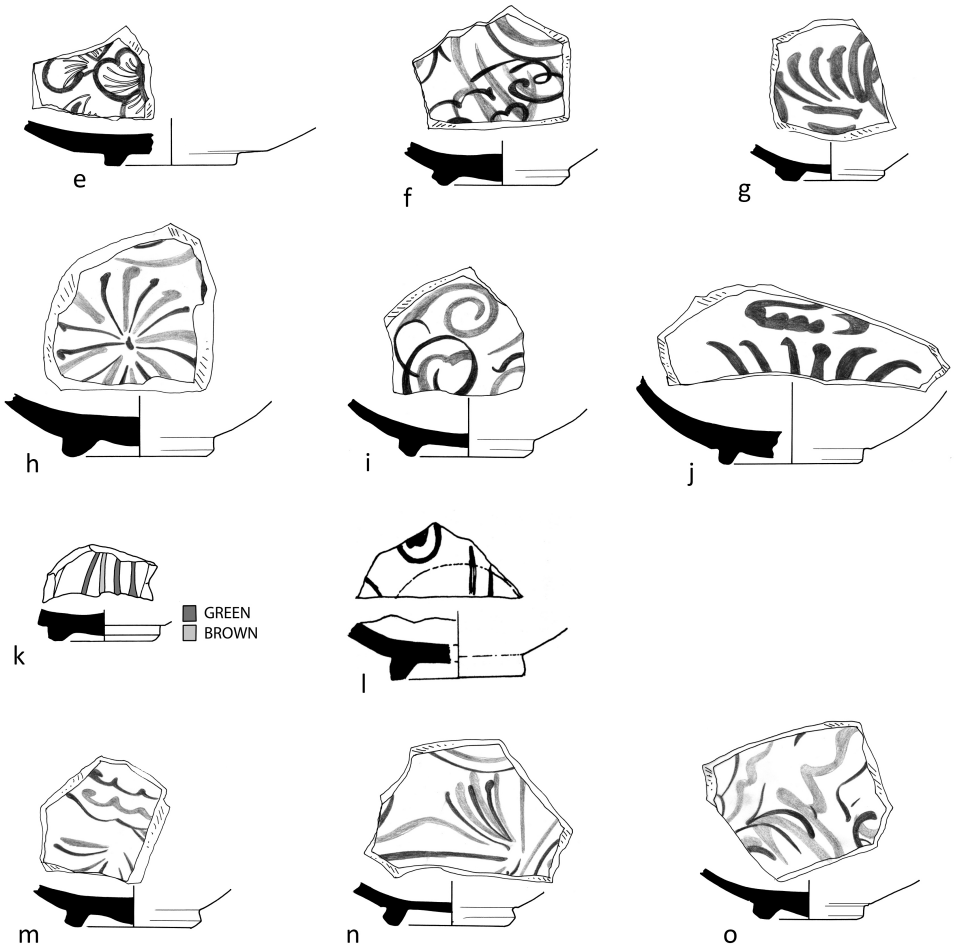


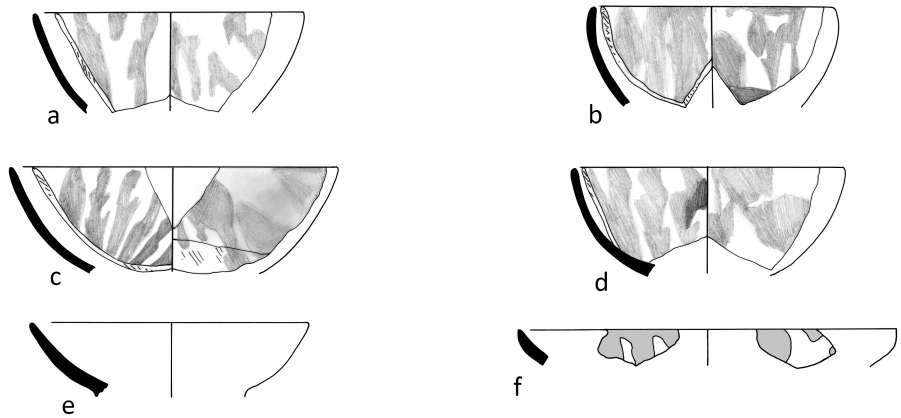
Figure 80 *a-d = CHA-B2; e-o = CHA-B3*

Figure 80						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	CHA-B2	CHANG	Siraf		2007.6001,1545	1:3
b	CHA-B2	CHANG	Siraf		2007.6001,2796	1:3
c	CHA-B2	CHANG	Siraf		2007.6001,4579	1:3
d	CHA-B2	CHANG	Siraf		2007.6001,1215	1:3
e	CHA-B3	CHANG	Siraf		2007.6001,5538	1:3
f	CHA-B3	CHANG	Siraf		2007.6001,6052	1:3
g	CHA-B3	CHANG	Siraf		2007.6001,8453	1:3
h	CHA-B3	CHANG	Siraf		2007.6001,9070	1:3
i	CHA-B3	CHANG	Siraf		2007.6001,5320	1:3
j	CHA-B3	CHANG	Siraf		2007.6001,2907	1:3
k	CHA-B3	CHANG	Williamson/ B17		12849	1:3
l	CHA-B3	CHANG	Sohar	Kervran, 2004: fig. 24: 5	1534.2	1:3
m	CHA-B3	CHANG	Siraf		2007.6001,1438	1:3
n	CHA-B3	CHANG	Siraf		2007.6001,7202	1:3
o	CHA-B3	CHANG	Siraf		2007.6001,979	1:3

WST – White Stonewares

Type	Form	Class(es)	Illustration	Concordance	Description
WST-OR1	Bowl	GWSG, WWSL	Fig. 81: a-f		Straight lip, hemispherical bowl
WST-OR2	Bowl	GWSG, WWSL	Figs. 81: g-o; 81: a-d		Everted lip, some WWSL has internal ribs and notches
WST-OR3	Dish	GWSG, GYSG	Fig. 82: e-j		Flared lip
WST-OR4	Bowl	GM	Fig. 83: a-g		Small dish with simple rounded lip
WST-B1	Bowl	WWSL	Fig. 84: a-h		Squared foot ring
WST-B2	Bowl	GWSG	Fig. 84: i-m		Squared foot ring, includes some with wide circumference
WST-B3	Bowl	WWSL	Fig. 84: n		Bi disc base, flat turned root ring with a concave depression in the centre

WST-OR1 - GWSG, WWSL



WST-OR2 - GWSG, WWSL

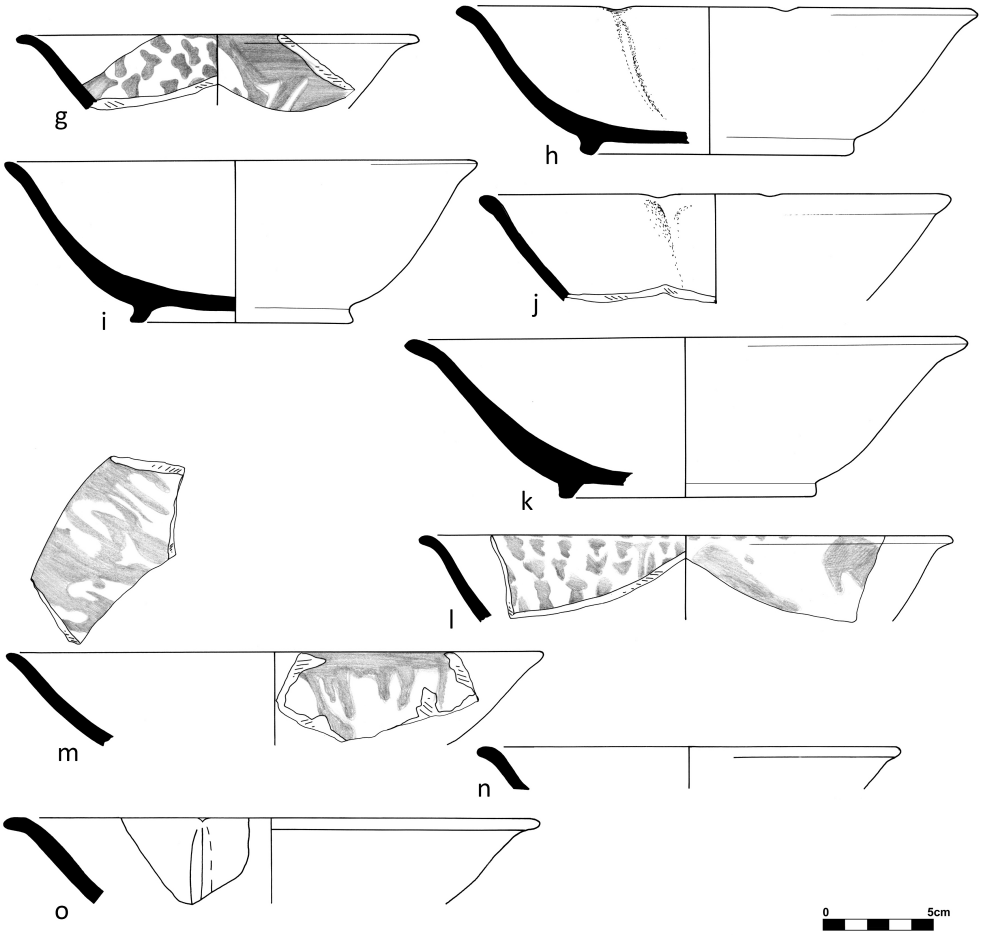


Figure 81 *a-f = WST-OR1; g-o = WST-OR2*

Figure 81						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	WST-OR1	GWSG	Siraf		2007.6001,8480	1:3
b	WST-OR1	GWSG	Siraf		2007.6001,2918	1:3
c	WST-OR1	GWSG	Siraf		2007.6001,8449	1:3
d	WST-OR1	GWSG	Siraf		2007.6001,2842	1:3
e	WST-OR1	WWSL	Siraf		2007.6001,1243	1:3
f	WST-OR1	GWSG	Williamson/ P1J		6508	1:3
g	WST-OR2	GWSG	Siraf		2007.6001,8599	1:3
h	WST-OR2	WWSL	Siraf		2007.6001,8678	1:3
i	WST-OR2	WWSL	Siraf		2007.6001,8192	1:3
j	WST-OR2	WWSL	Siraf		2007.6001,8677	1:3
k	WST-OR2	WWSL	Siraf		2007.6001,7363	1:3
l	WST-OR2	GWSG	Siraf		2007.6001,8200	1:3
m	WST-OR2	GWSG	Siraf		2007.6001,8499	1:3
n	WST-OR2	GWSG	Williamson/ K146		11693	1:3
o	WST-OR2	GWSG	Williamson/ SS41		8199	1:3

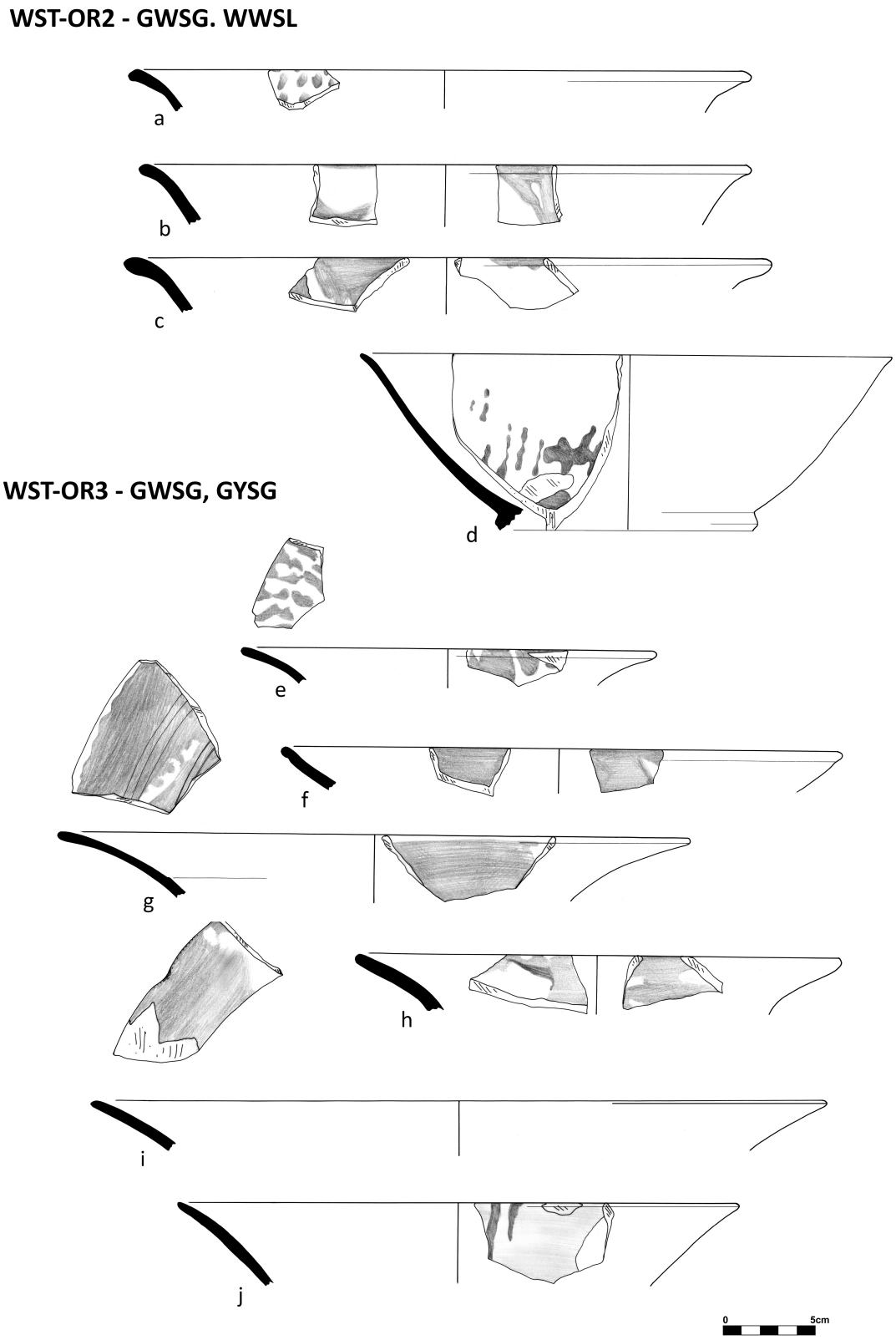


Figure 82 *a-d = WST-OR2; e-j = WST-OR3*

Figure 82						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	WST-OR2	GWSG	Siraf		2007.6001,7461	1:3
b	WST-OR2	GWSG	Siraf		2007.6001,3190	1:3
c	WST-OR2	GWSG	Siraf		2007.6001,9230	1:3
d	WST-OR2	GWSG	Siraf		2007.6001,6980	1:3
e	WST-OR3	GWSG	Siraf		2007.6001,8963	1:3
f	WST-OR3	GWSG	Siraf		2007.6001,8481	1:3
g	WST-OR3	GWSG	Siraf		2007.6001,6728	1:3
h	WST-OR3	GWSG	Siraf		2007.6001,5331	1:3
i	WST-OR3	GWSG	Siraf		2007.6001,8664	1:3
j	WST-OR3	GYSG	Siraf		2007.6001,6734	1:3

WST-OR4 - GM

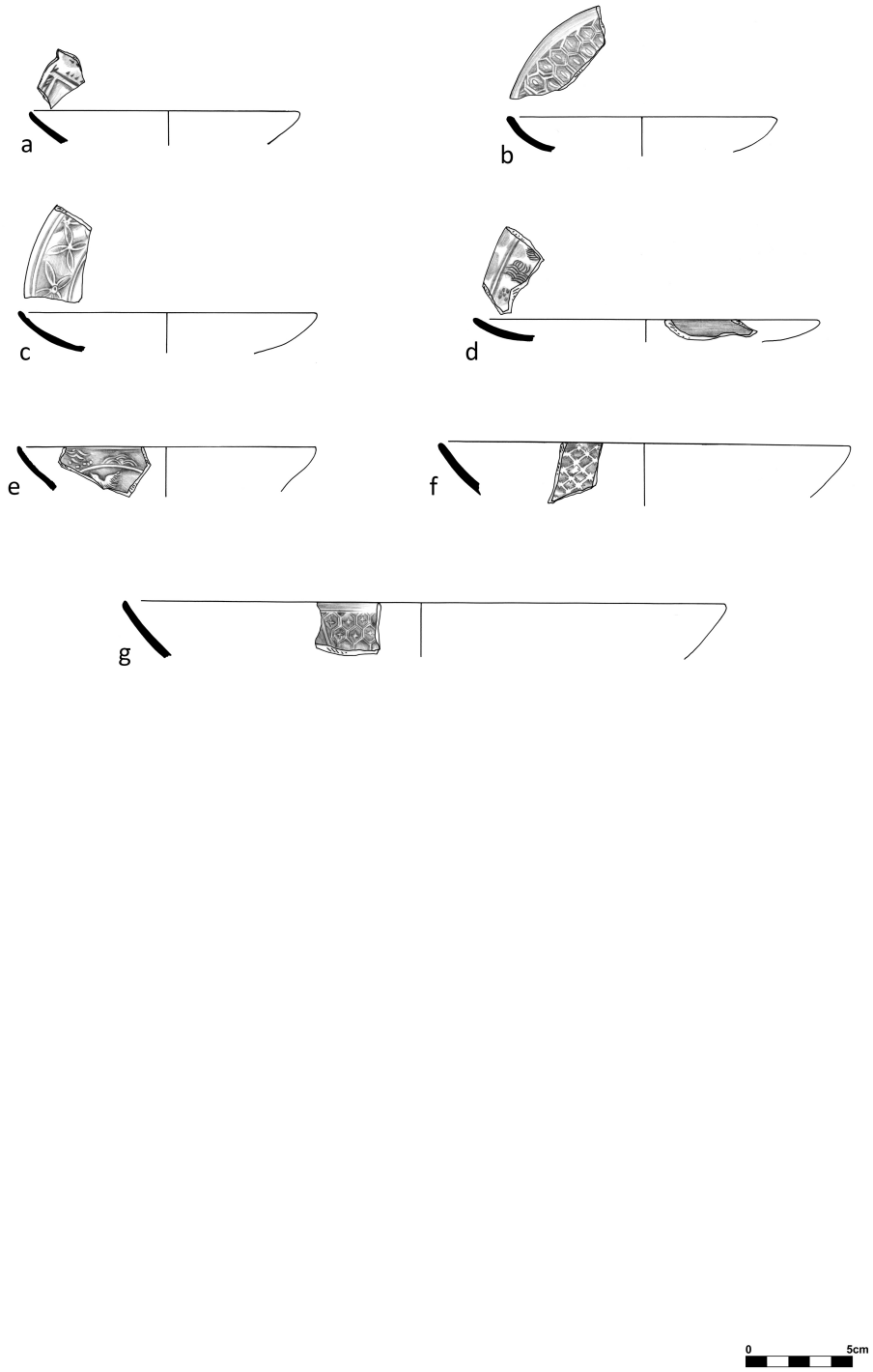
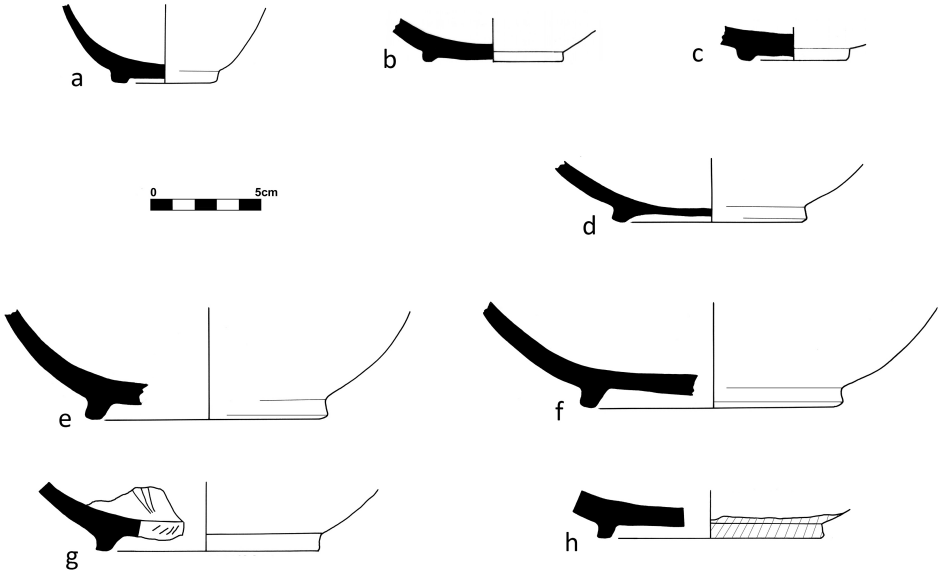


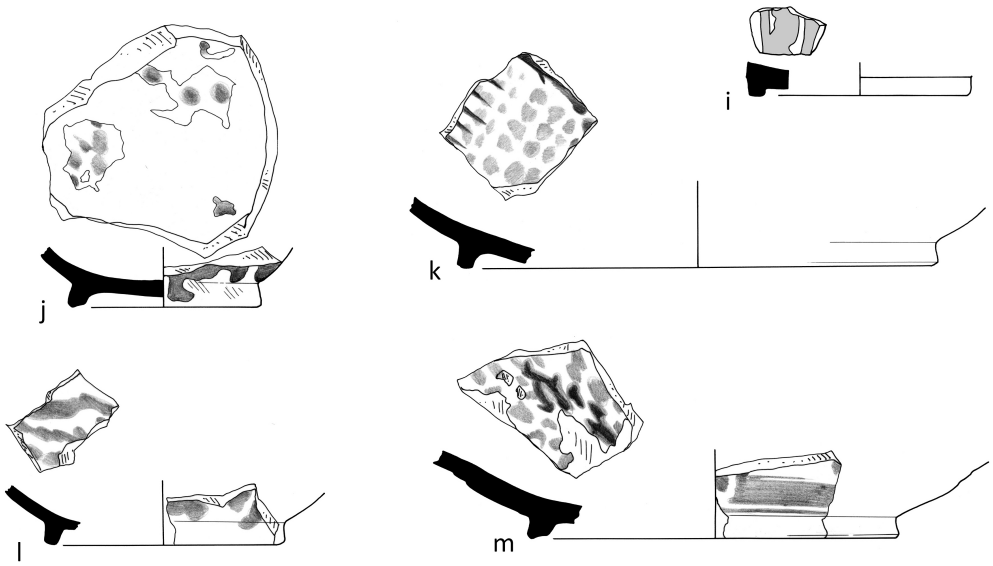
Figure 83 *a-g = WST-OR4*

Figure 83						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	WST-OR4	GM	Siraf		2007.6001,9069	1:3
b	WST-OR4	GM	Siraf		2007.6001,10065	1:3
c	WST-OR4	GM	Siraf		2007.6001,8730	1:3
d	WST-OR4	GM	Siraf		2007.6001,5319	1:3
e	WST-OR4	GM	Siraf		2007.6001,2776	1:3
f	WST-OR4	GM	Siraf		2007.6001,6775	1:3
g	WST-OR4	GM	Siraf		2007.6001,7587	1:3

WST-B1 - WWSL



WST-B2 - GWSG



WST-B3 - WWSL

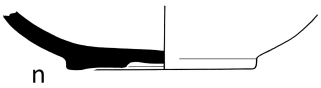


Figure 84 *a-h = WST-B1; i-m = WST-B2; n = WST-B3*

Figure 84						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	WST-B1	WWSL	Siraf		2007.6001,9097	1:3
b	WST-B1	WWSL	Unguja Ukuu		UU14/1440	1:3
c	WST-B1	WWSL	Unguja Ukuu		UU14/1406	1:3
d	WST-B1	WWSL	Siraf		2007.6001,7513	1:3
e	WST-B1	WWSL	Siraf		2007.6001,6422	1:3
f	WST-B1	WWSL	Siraf		2007.6001,9011	1:3
g	WST-B1	WWSL	Williamson/ SS34		8911	1:3
h	WST-B1	WWSL	Williamson/ SS		8937	1:3
i	WST-B2	GWSG	Williamson/ H38B		3316	1:3
j	WST-B2	GWSG	Siraf		2007.6001,7312	1:3
k	WST-B2	GWSG	Siraf		2007.6001,8496	1:3
l	WST-B2	GWSG	Siraf		2007.6001,658	1:3
m	WST-B2	GWSG	Siraf		2007.6001,6981	1:3
n	WST-B3	WWSL	Siraf		2007.6001,2786	1:3

YUE – Yue Ware

Type	Form	Class(es)	Illustration	Concordance	Description
YUE-OR1	Bowl	YUE.1	Fig. 86: a		Conical bowl, straight sides and glaze slipping from lip
YUE-OR2	Bowl	YUE.3	Fig. 86: b-f		Pointed lip, straight or gently curved sides
YUE-OR3	Bowl	YUE.3	Fig. 87: a-c		Gently everted lip
YUE-OR4	Bowl	YUE.2	Fig. 87: d-k		Foliated rim with vertical indentations in the sides
YUE-OR5	Bowl	YUE.4	Fig. 88: a-d		Foliated rim, no wall indentation
YUE-OR6	Bowl	YUE.3	Fig. 88: e-k		Hemispherical bowl, simple rounded lip
YUE-B1	Bowl	YUE.1, STONE.GU	Fig. 85		Bi-disc base, flat turned root ring, with a concave depression in the centre
YUE-B2	Bowl	YUE.3	Fig. 89		Low squared foot ring with spur marks on the foot and interior
YUE-B3	Bowl	YUE.3	Not illustrated		Low squared foot ring with spur marks on the base only and not the interior
YUE-B4	Bowl	YUE.3	Fig. 90: a-b		Narrow pointed foot ring with spur marks on the foot
YUE-B5	Bowl	YUE.4	Fig. 90: c		Narrow pointed foot ring, with bar shaped spur marks inside the foot, and turned step ring round the base interior
YUE-B6	Bowl	YUE.3	Fig. 90: d-g		Recessed foot with spur marks on the base of the foot
YUE-B7	Bowl	YUE.4	Fig. 91: a-d		Recessed foot with bar shaped spur marks inside the foot well
YUE-B8	Bowl	YUE.4	Fig. 91: g-h		Narrow splayed foot ring combined with fine incised decoration
YUE-CR1	Box	YUE.4	Fig. 91: i-l		Small round box lid or base. Essentially the same form as POR-CR1
YUE-L1	Lid	YUE.2	Not illustrated		Box or incense burner with pointed thumb pull
YUE-F1	Bowl	YUE.2	Fig. 91: e-f		Bowl with simple broad lined incised decoration
YUE-F2	Bowl	YUE.4	Not illustrated		Fine, incised decoration as found in association with YUE-B6

YUE-B1 - STONE-GU, YUE.1

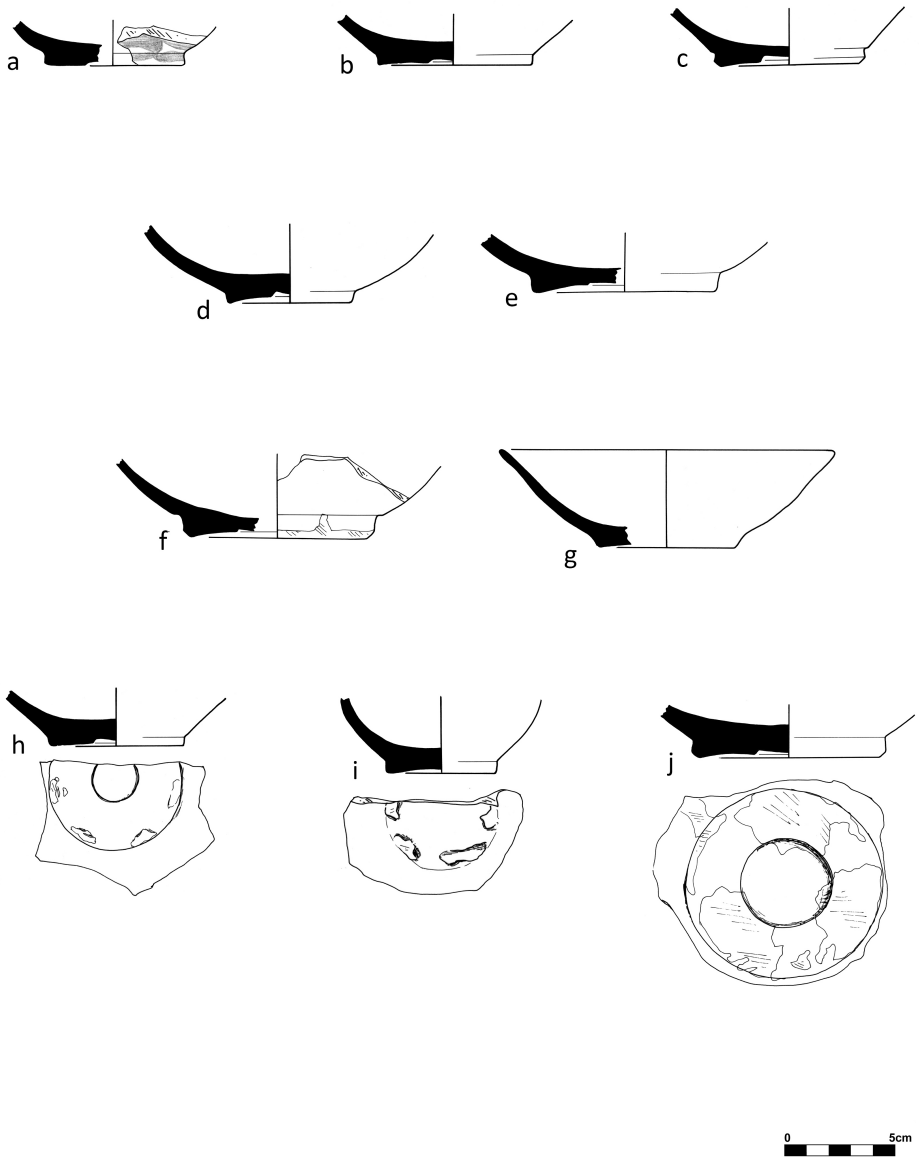
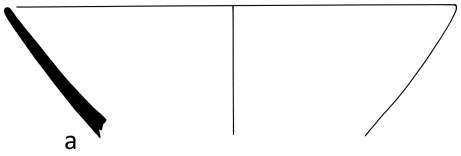


Figure 85 *a-j = YUE-B1*

Figure 85						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	YUE-B1	STONE-GU	Siraf		2007.6001,9019	1:3
b	YUE-B1	YUE.1	Siraf		2007.6001,5007	1:3
c	YUE-B1	YUE.1	Siraf		2007.6001,8998	1:3
d	YUE-B1	YUE.1	Siraf		2007.6001,8351	1:3
e	YUE-B1	STONE-GU	Siraf		2007.6001,8609	1:3
f	YUE-B1	STONE-GU	Siraf		2007.6001,6731	1:3
g	YUE-B1	YUE.1	Siraf		2007.6001,7751	1:3
h	YUE-B1	YUE.1	Siraf		2007.6001,6413	1:3
i	YUE-B1	YUE.1	Siraf		2007.6001,8350	1:3
j	YUE-B1	STONE-GU	Siraf		2007.6001,872	1:3

YUE-OR1 - YUE.1



YUE-OR2 - YUE.3

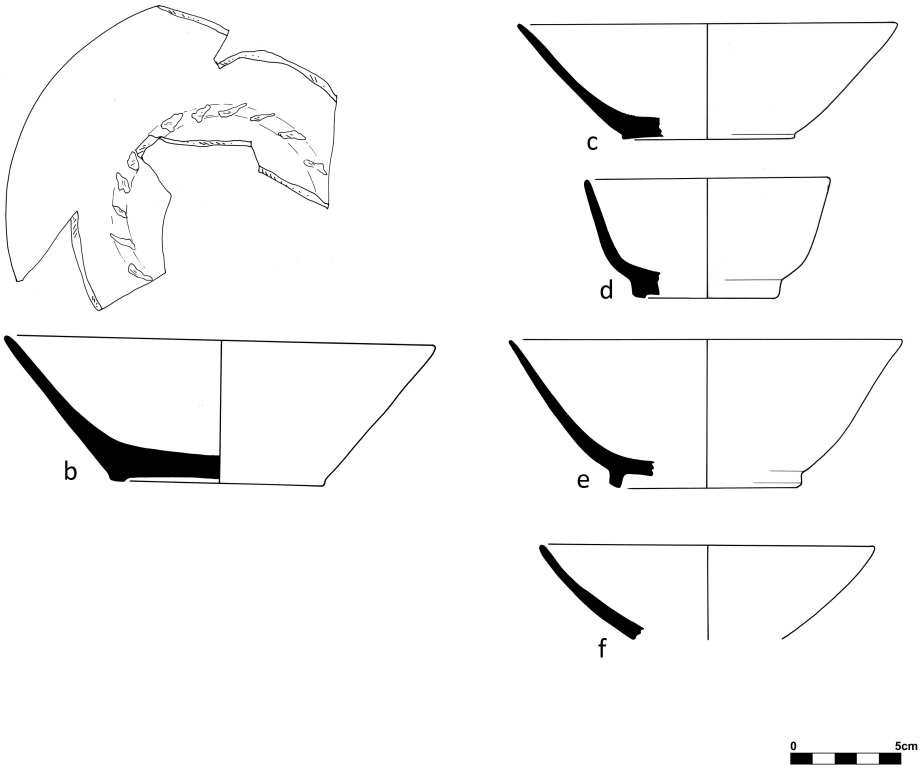


Figure 86 *a = YUE-OR1; b-f = YUE-OR2*

Figure 86						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	YUE-OR1	YUE.1	Siraf		2007.6001,5336	1:3
b	YUE-OR2	YUE.3	Siraf		2007.6001,9832	1:3
c	YUE-OR2	YUE.3	Siraf		2007.6001,5359	1:3
d	YUE-OR2	YUE.3	Siraf		2007.6001,7898	1:3
e	YUE-OR2	YUE.3	Siraf		2007.6001,8342	1:3
f	YUE-OR2	YUE.3	Siraf		2007.6001,9301	1:3

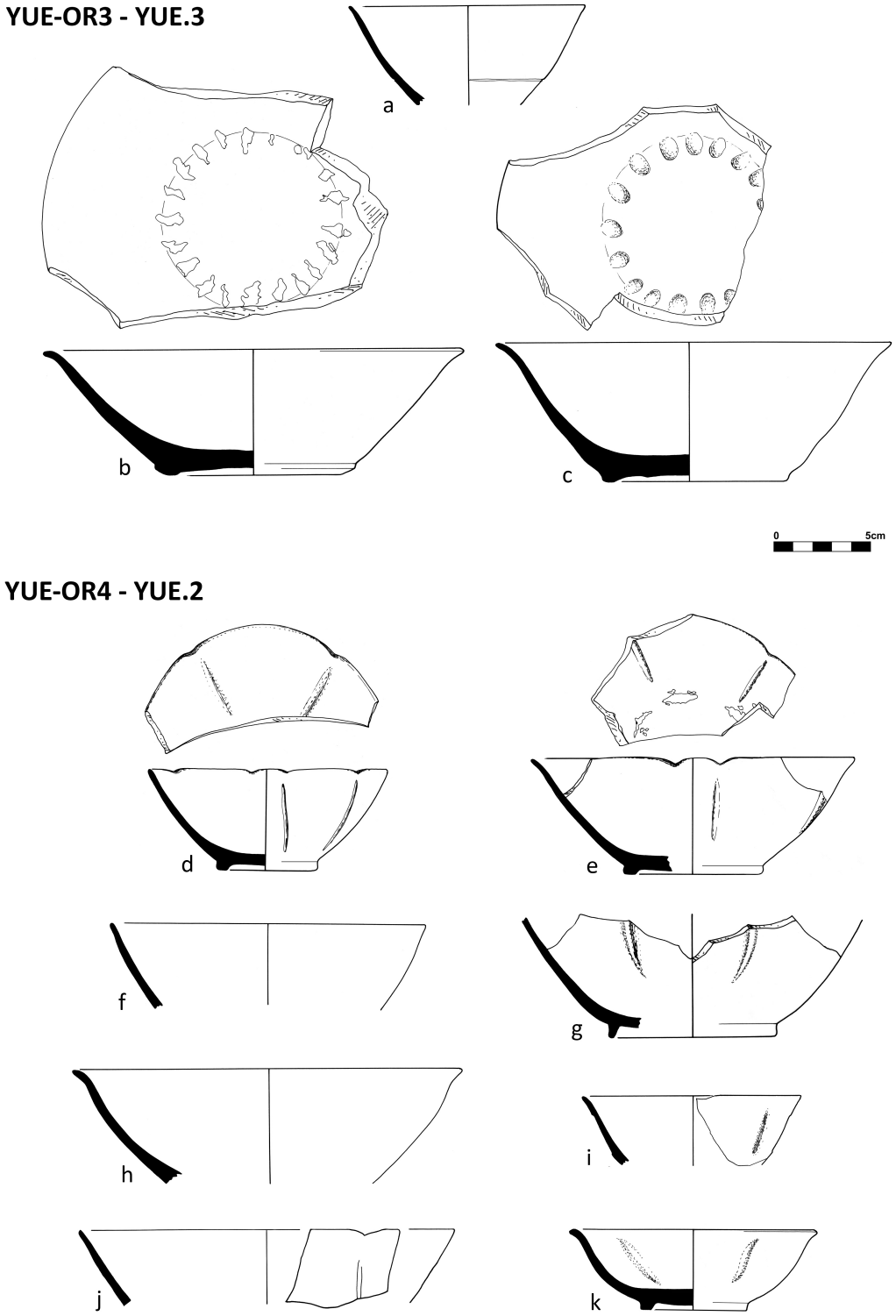


Figure 87 *a-c = YUE-OR3; d-k = YUE-OR4*

Figure 87						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	YUE-OR3	YUE.3	Siraf		2007.6001,5086	1:3
b	YUE-OR3	YUE.3	Siraf		2007.6001,9843	1:3
c	YUE-OR3	YUE.3	Siraf		2007.6001,8248	1:3
d	YUE-OR4	YUE.2	Siraf		2007.6001,8013	1:3
e	YUE-OR4	YUE.2	Siraf		2007.6001,7474	1:3
f	YUE-OR4	YUE.2	Siraf		2007.6001,5342	1:3
g	YUE-OR4	YUE.2	Siraf		2007.6001,7328	1:3
h	YUE-OR4	YUE.2	Siraf		2007.6001,6362	1:3
i	YUE-OR4	YUE.2	Siraf		2007.6001,5008	1:3
j	YUE-OR4	YUE.2	Williamson/ B20A		13387	1:3
k	YUE-OR4	YUE.2	Siraf		2007.6001,8416	1:3

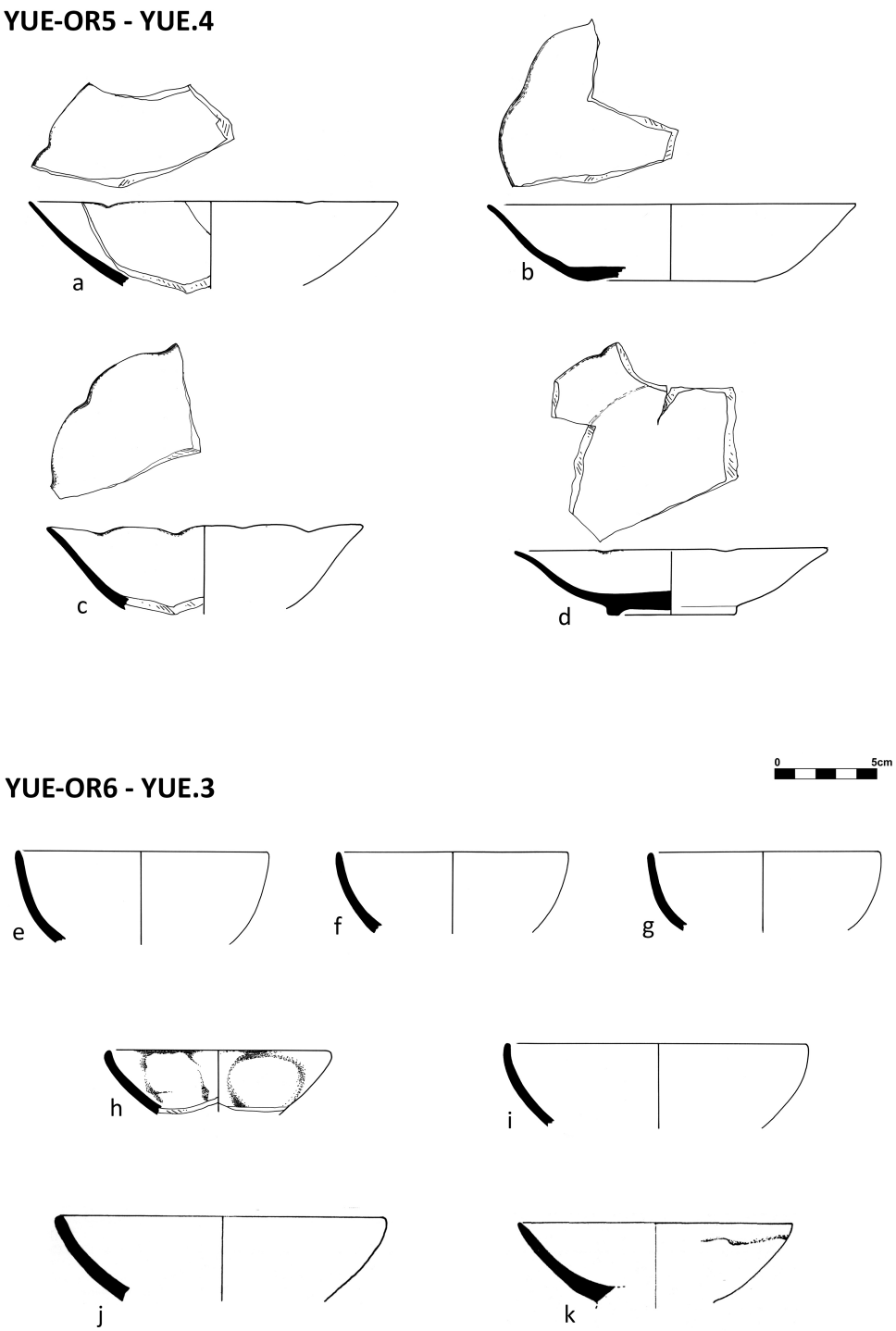


Figure 88 *a-d = YUE-OR5; e-k = YUE-OR6*

Figure 88						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	YUE-OR5	YUE.4	Siraf		2007.6001,6804	1:3
b	YUE-OR5	YUE.4	Siraf		2007.6001,8049	1:3
c	YUE-OR5	YUE.4	Siraf		2007.6001,5321	1:3
d	YUE-OR5	YUE.4	Siraf		2007.6001,8733	1:3
e	YUE-OR6	YUE.3	Siraf		2007.6001,8613	1:3
f	YUE-OR6	YUE.3	Siraf		2007.6001,5009	1:3
g	YUE-OR6	YUE.3	Siraf		2007.6001,9118	1:3
h	YUE-OR6	YUE.3	Siraf		2007.6001,9076	1:3
i	YUE-OR6	YUE.3	Siraf		2007.6001,8524	1:3
j	YUE-OR6	YUE.3	Sohar	Kervran, 2004: fig. 23 bis: 11	574.5	1:3
k	YUE-OR6	YUE.3	Sohar	Kervran, 2004: fig. 22: 11	607	1:3

YUE-B2 - YUE.3

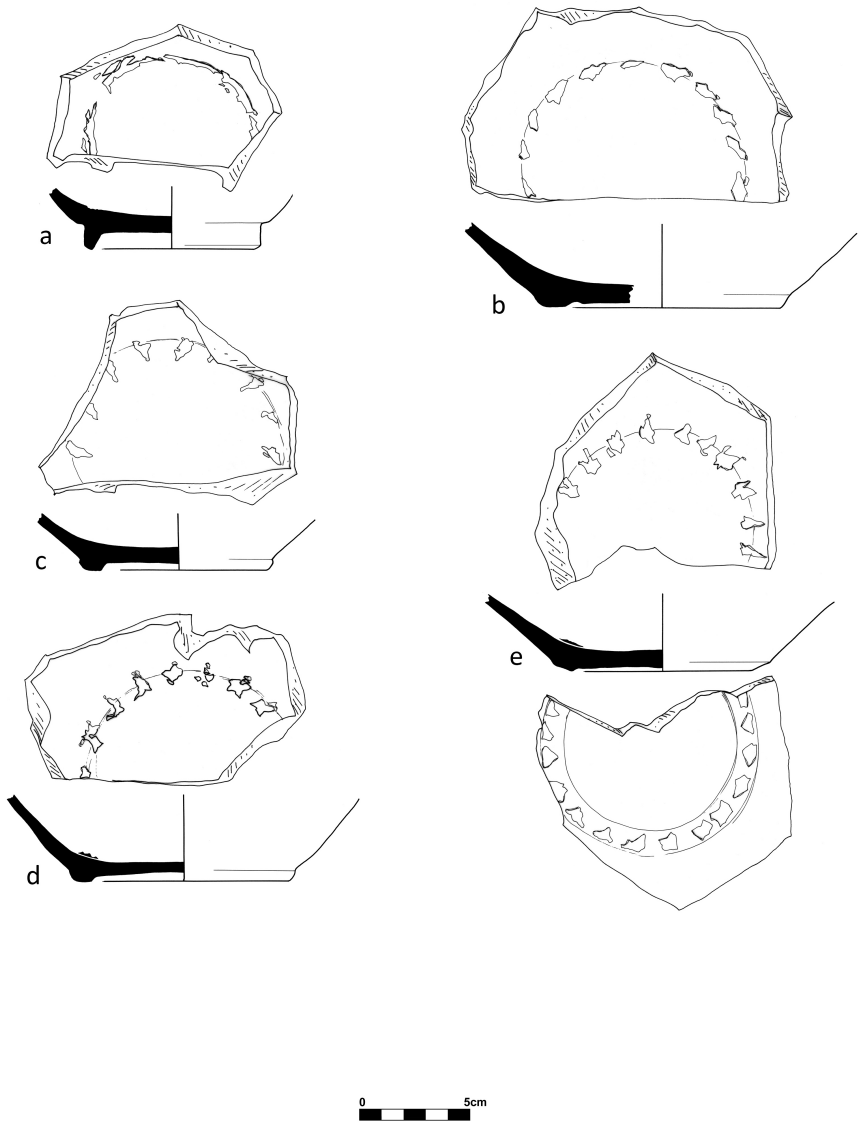
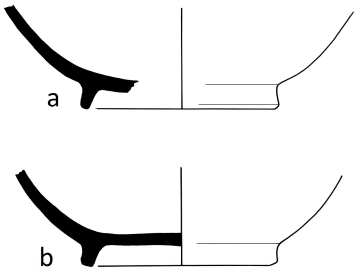


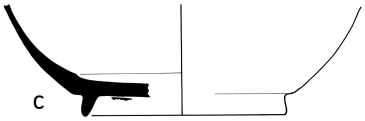
Figure 89 *a-e = YUE-B2*

Figure 89						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	YUE-B2	YUE.3	Siraf		2007.6001,6967	1:3
b	YUE-B2	YUE.3	Siraf		2007.6001,2431	1:3
c	YUE-B2	YUE.3	Siraf		2007.6001,8066	1:3
d	YUE-B2	YUE.3	Siraf		2007.6001,9561	1:3
e	YUE-B2	YUE.3	Siraf		2007.6001,9152	1:3

YUE-B4 - YUE.3



YUE-B5 - YUE.4



YUE-B6 - YUE.3

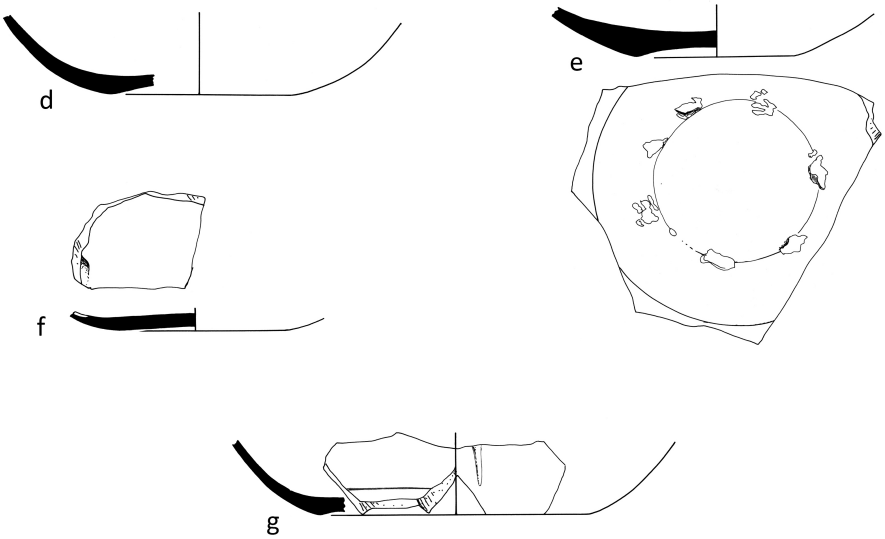
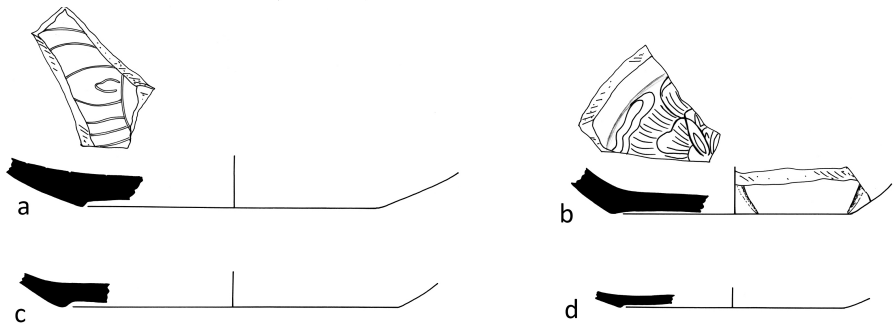


Figure 90 *a-b = YUE-B4; c = YUE-B5; d-g = YUE-B6*

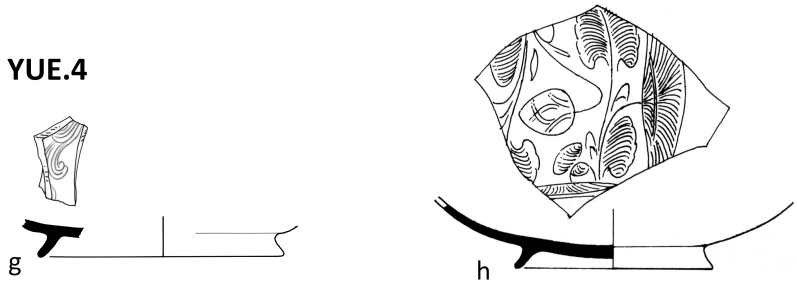
Figure 90						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	YUE-B4	YUE.3	Siraf		2007.6001,7831	1:3
b	YUE-B4	YUE.3	Siraf		2007.6001,8318	1:3
c	YUE-B5	YUE.4	Siraf		2007.6001,8523	1:3
d	YUE-B6	YUE.3	Siraf		2007.6001,8251	1:3
e	YUE-B6	YUE.3	Siraf		2007.6001,8270	1:3
f	YUE-B6	YUE.3	Siraf		2007.6001,7549	1:3
g	YUE-B6	YUE.3	Siraf		2007.6001,7994	1:3

YUE-B7 - YUE.4



YUE-F1 - YUE.2

YUE-B8 - YUE.4



YUE-CR1 - YUE.4

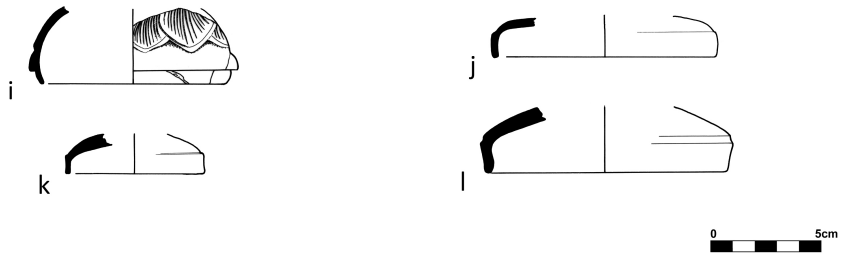


Figure 91 *a-d = YUE-B7; e-f = YUE-F1; g-h = YUE-B8; i-l = YUE-CR1*

Figure 91						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	YUE-B7	YUE.4	Siraf		2007.6001,9087	1:3
b	YUE-B7	YUE.4	Siraf		2007.6001,8395	1:3
c	YUE-B7	YUE.4	Siraf		2007.6001,1740	1:3
d	YUE-B7	YUE.4	Siraf		2007.6001,9031	1:3
e	YUE-F1	YUE.4	Siraf		2007.6001,3166	1:3
f	YUE-F1	YUE.4	Siraf		2007.6001,8587	1:3
g	YUE-B8	YUE.4	Siraf		2007.6001,4922	1:3
h	YUE-B8	YUE.4	Sohar	Kervran, 2004: fig. 31: 7	2192.100	1:3
i	YUE-CR1	YUE.4	Siraf		2007.6001,6968	1:3
j	YUE-CR1	YUE.4	Siraf		2007.6001,8069	1:3
k	YUE-CR1	YUE.4	Siraf		2007.6001,5097	1:3
l	YUE-CR1	YUE.4	Siraf		2007.6001,6480	1:3

LQC – Longquan Celadon

Type	Form	Class(es)	Illustration	Concordance	Description
LQC-OR1	Dish or Bowl	LQC	Fig. 92	Priestman, 2005a: LQC.1:02; LQC.3:04 (some)	Open dish or bowl with a recurved flange rim, a fluted interior, and a plain exterior. Can be stacked on base or on rings
LQC-OR2	Bowl	LQC	Fig. 93	Priestman, 2005a: LQC.1:03 (some); LQC.2:01 (some); LQC.2:03; LQC.2:11; LQC.3:04 (some)	Open bowl with a straight or recurved flange rim, carved lotus petals on the exterior, and a plain or incised interior. Can be stacked on base or on ring. The type is closely related to LQC-OR3 but lacks applique fish
LQC-OR3	Bowl	LQC	Fig. 94: a-b	Priestman, 2005a: LQC.1:01	Straight flange rim, carved lotus petals on the exterior and applique fish attached to the base interior. Stacked on foot
LQC-OR4	Dish	LQC	Fig. 94: c-g	Priestman, 2005a: LQC.2:02	Straight, lobed flange and fluted interior and/or exterior walls
LQC-OR5	Dish	LQC	Fig. 95: a	Priestman, 2005a: LQC.2:02 (some)	Open dish with a straight flange. Both the flange and interior are carved with radial petals and fluting
LQC-OR6	Dish or Bowl	LQC	Fig. 95: b-f	Priestman, 2005a: LQC.1:03 (some)	Recurved flange rim and a plain interior and exterior. Closely related to LQC-OR1 but lacking decoration.
LQC-OR7	Bowl	LQC	Fig. 96: a-d	Priestman, 2005a: LQC.2:01 (some)	Hemispherical bowl with a pointed lip and standard lotus petals carved on the exterior. Stacked standing on foot
LQC-OR8	Bowl	LQC	Fig. 96: e	Priestman, 2005a: LQC.2:01 (some)	Closed bowl with upright sides, a straight pointed lip, and standard lotus petals carved on the exterior
LQC-OR9	Bowl	LQC	Fig. 96: f-g	Priestman, 2005a: LQC.2:10	Closed bowl with a high carination and carved lotus petals on the exterior
LQC-OR10	Bowl	LQC	Fig. 97: a-b	Priestman, 2005a: LQC.2:04	Small open bowl with scalloped rim and sides
LQC-OR11	Bowl	LQC	Fig. 97: c-j	Priestman, 2005a: LQC.3:01	Straight or slightly everted lip, similar to LQC-OR13 but with plain, or minimally decorated, interior and exterior surfaces
LQC-OR12	Bowl	LQC	Fig. 97: k-o	Priestman, 2005a: LQC.3:05	Gently everted lip, similar to LQC-OR13, but with moulded decoration on the interior consisting of a wavy border below the rim

Type	Form	Class(es)	Illustration	Concordance	Description
LQC-OR13	Bowl	LQC	Fig. 98: a-c	Priestman, 2005a: LQC.2:13	Hemispherical bowl with a straight, or slightly everted, lip. Characteristic incised decoration on the exterior, consists of parallel bands with occasional short oblique lines crossing through
LQC-OR14	Bowl	LQC	Fig. 98: d-e	Priestman, 2005a: LQC.2:14	Closed bowl with upright sides and a straight pointed lip. Characteristic carved decoration on the exterior consists of horizontal bands with occasional short oblique lines crossing through. Same motif as occurs on LQC-OR13
LQC-OR15	Bowl	LQC	Fig. 98: f-h	Priestman, 2005a: LQC.3:03	Gently everted and slightly lobed lip. The wall can be curved or slightly carinated and the surfaces can be plain or have the upper wall portion fluted
LQC-OR16	Dish	LQC	Fig. 98: i-j	Priestman, 2005a: LQC.2:07	Small open dish with short curving sides and horizontal and vertical grooves intersecting on the exterior and vertical grooves on the interior. The rim is plain but slightly scalloped
LQC-OR17	Bowl	LQC	Fig. 99: a	Priestman, 2005a: LQC.3:08	Open hemispherical bowl with a simple rounded rim. Incised decoration on the interior and exterior consists of uniform thickness lines with an interlocking squared spiral border on the interior and characters below
LQC-B1	Bowl	LQC	Fig. 99: b	Priestman, 2005a: LQC.1:01	Narrow straight foot ring stacked standing on foot. Identical to LCQ-B2 but associated exclusively with fish applique vessels
LQC-B2	Bowl	LQC	Fig. 99: c-i	Priestman, 2005a: LQC.2:15	Narrow straight foot ring stacked standing on foot. Identical to LQC-B1 but lacks applique fish. Could be further sub-divided into very narrow and wider versions
LQC-B3	Dish	LQC	Fig. 99: j-l	Priestman, 2005a: LQC.2:16	Wide foot ring with sloping outer edge. Stacked standing on foot
LQC-B4	Dish	LQC	Fig. 100: a	Priestman, 2005a: LQC.3:06	Wide foot ring with sloping outer edge. Stacked standing on ring

Type	Form	Class(es)	Illustration	Concordance	Description
LQC-B5	Bowl	LQC	Fig. 100: b-l	Priestman, 2005a: LQC.2:17; LQC.3:07	Small, slightly rounded foot ring. Stacked standing on ring. Often thick and robust
LQC-CR1	Jarlet	LQC	Fig. 95: g	Priestman, 2005a: LQC.2:05	Small globular lidded jar, with a short collar neck, fluted sides, and a curved recessed base
LQC-L1	Jar	LQC	Fig. 95: h-i	Priestman, 2005a: LQC.2:06	Jar lid, domed top with plain surfaces

LQC-OR1 - LQC

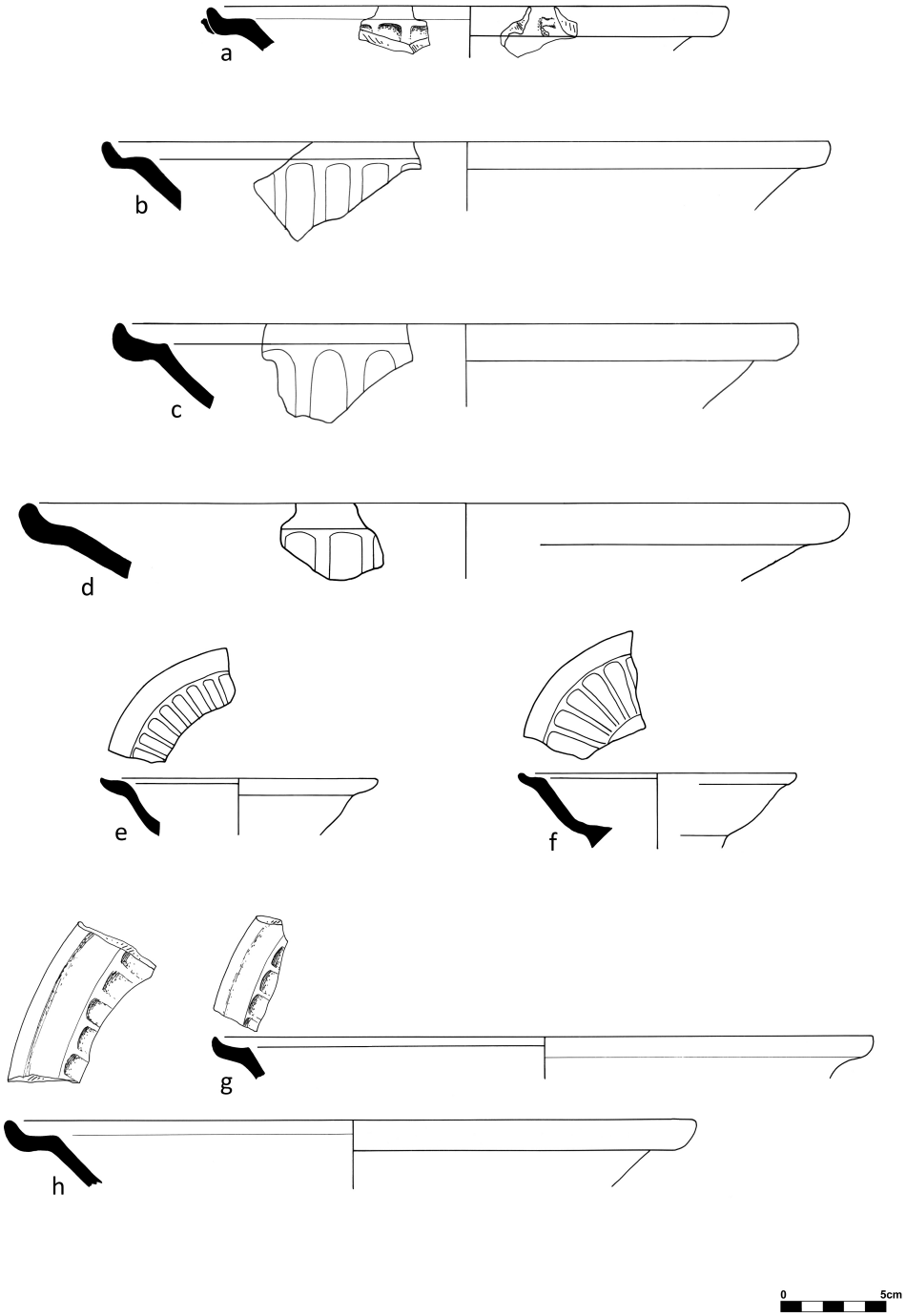


Figure 92 *a-h = LQC-OR1*

Figure 92						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	LQC-OR1	LQC	Siraf		2007.6001,5875	1:3
b	LQC-OR1	LQC	Williamson/ AE10		1113	1:3
c	LQC-OR1	LQC	Williamson/ AE2		1091	1:3
d	LQC-OR1	LQC	Williamson/ AA1C		1284	1:3
e	LQC-OR1	LQC	Williamson/ K103		17331	1:3
f	LQC-OR1	LQC	Williamson/ K103		4464	1:3
g	LQC-OR1	LQC	Siraf		2007.6001,6152	1:3
h	LQC-OR1	LQC	Siraf		2007.6001,120	1:3

LQC-OR2 - LQC

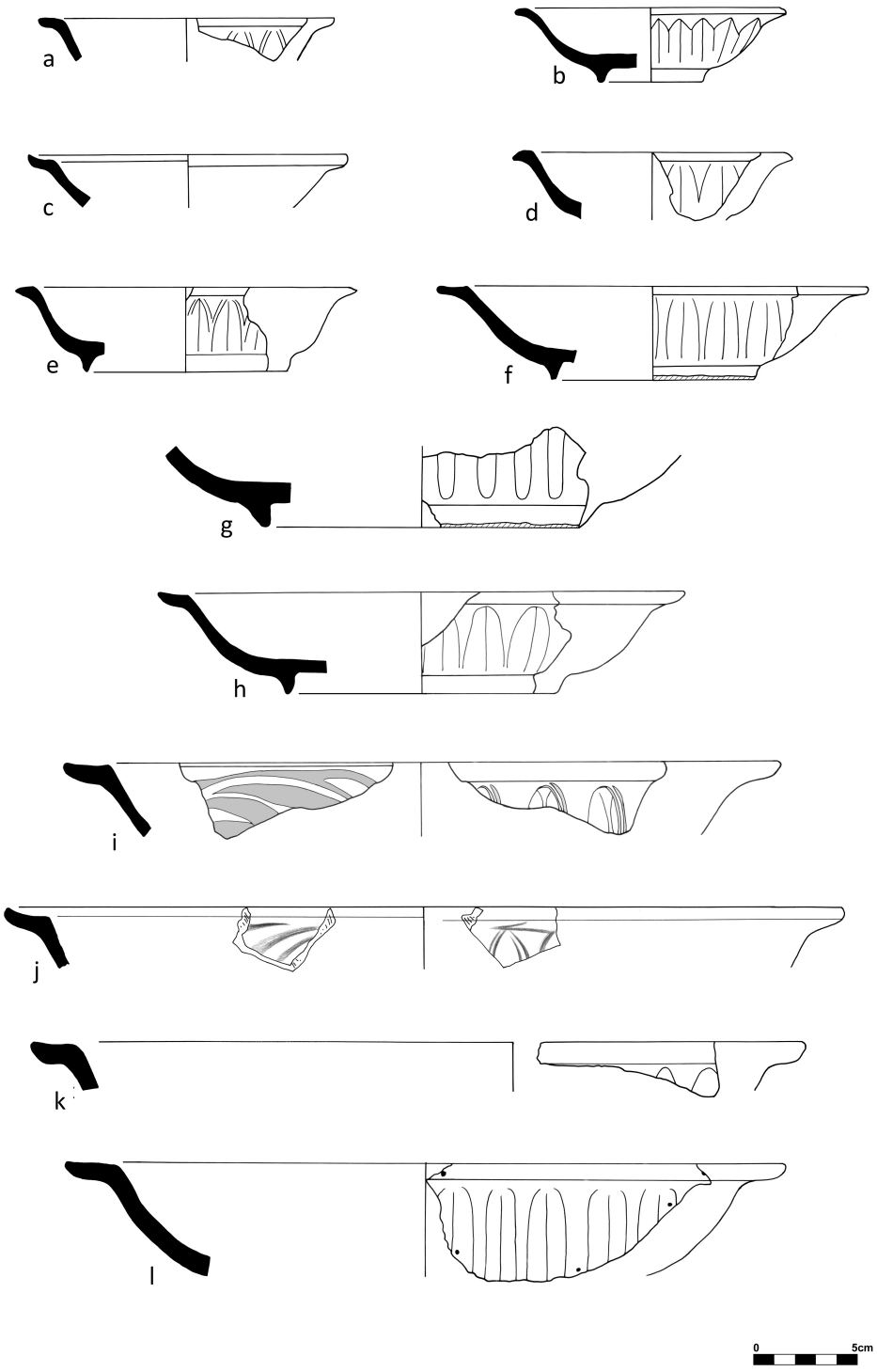
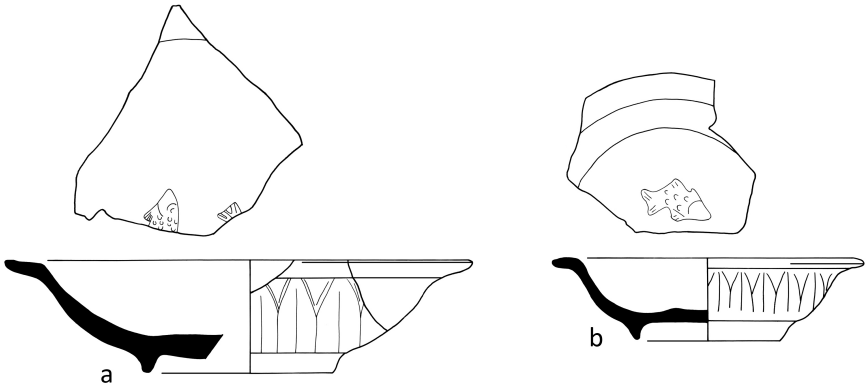


Figure 93 *a-l = LQC-OR2*

Figure 93						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	LQC-OR2	LQC	Williamson/ K103		18059	1:3
b	LQC-OR2	LQC	Williamson/ K103		4426	1:3
c	LQC-OR2	LQC	Williamson/ K124		659	1:3
d	LQC-OR2	LQC	Williamson/ K103		4449	1:3
e	LQC-OR2	LQC	Williamson/ K103		4442	1:3
f	LQC-OR2	LQC	Williamson/ K103		4458	1:3
g	LQC-OR2	LQC	Williamson/ K103X		18147	1:3
h	LQC-OR2	LQC	Williamson/ K103		17620	1:3
i	LQC-OR2	LQC	Williamson/ K103		17601	1:3
j	LQC-OR2	LQC	Siraf		2007.6001,5467	1:3
k	LQC-OR2	LQC	Williamson/ K107		17548	1:3
l	LQC-OR2	LQC	Williamson/ K103		4430	1:3

LQC-OR3 - LQC



LQC-OR4 - LQC

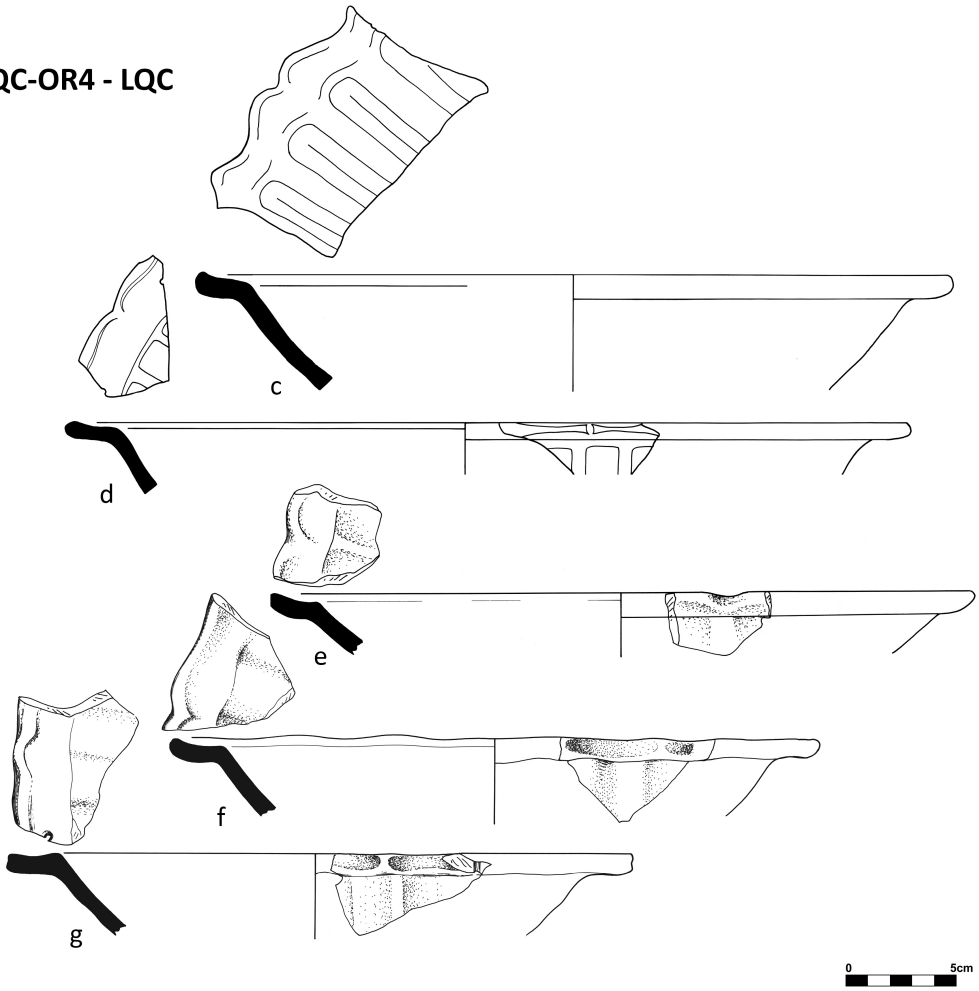


Figure 94 *a-b = LQC-OR3; c-g = LQC-OR4*

Figure 94						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	LQC-OR3	LQC	Williamson/ AE2		1102	1:3
b	LQC-OR3	LQC	Williamson/ K103		4429	1:3
c	LQC-OR4	LQC	Williamson/ AE4		1103	1:3
d	LQC-OR4	LQC	Williamson/ K103X		17397	1:3
e	LQC-OR4	LQC	Siraf		2007.6001,8999	1:3
f	LQC-OR4	LQC	Siraf		2007.6001,9079	1:3
g	LQC-OR4	LQC	Siraf		2007.6001,6143	1:3

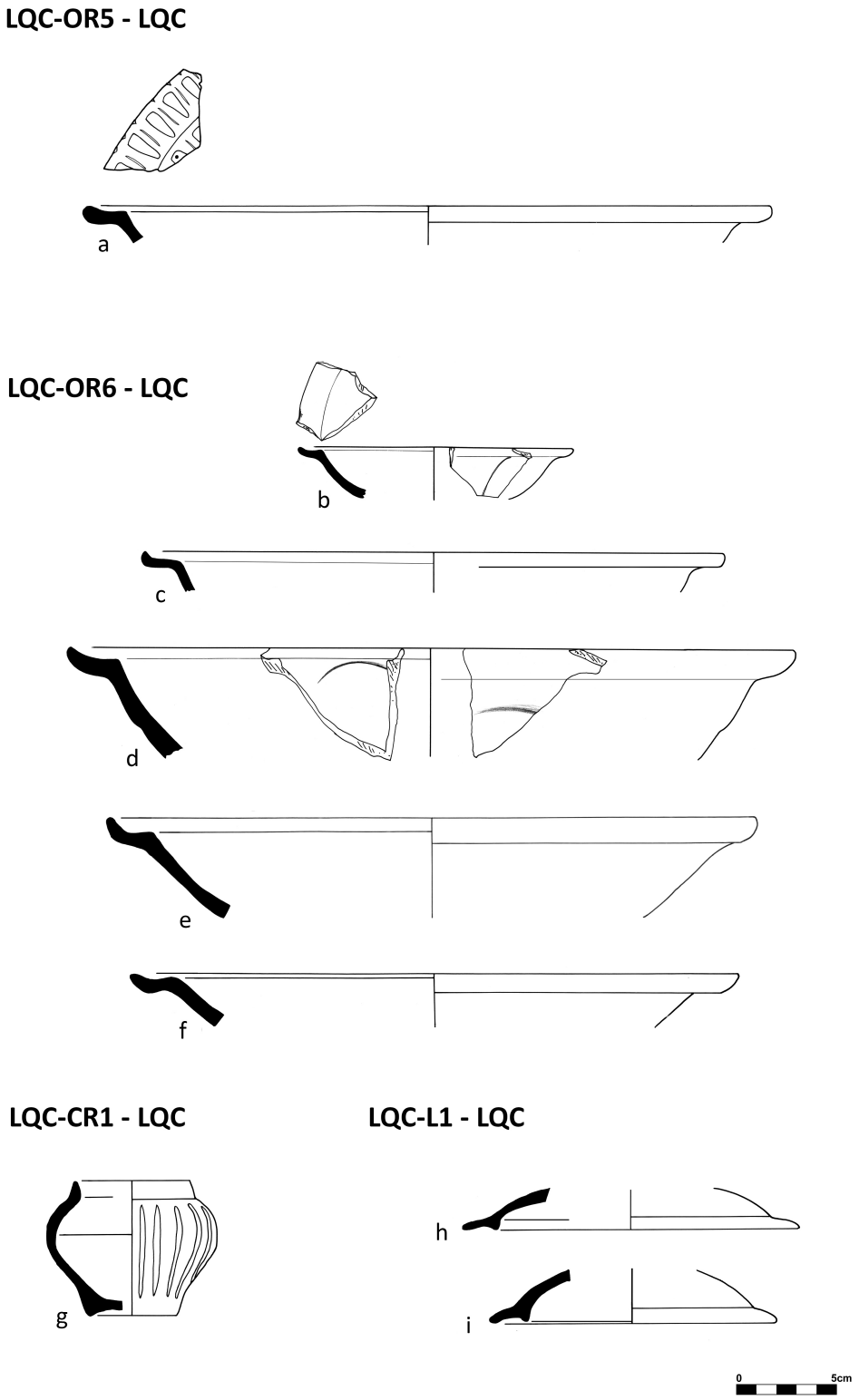
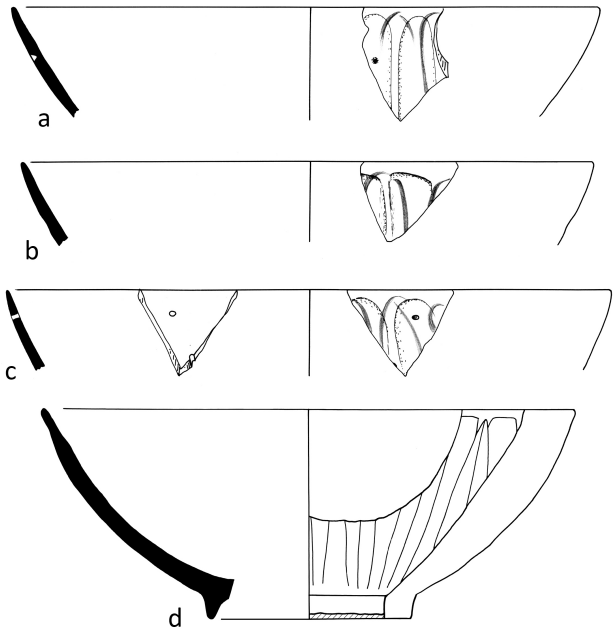


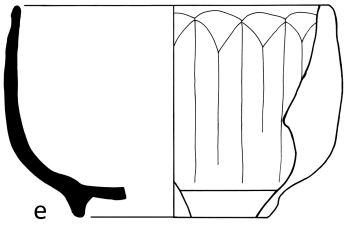
Figure 95 *a = LQC-OR5; b-f = LQC-OR6; g = LQC-CR1; h-i = LQC-L1*

Figure 95						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	LQC-OR5	LQC	Williamson/ K145B		923	1:3
b	LQC-OR6	LQC	Siraf		2007.6001,5522	1:3
c	LQC-OR6	LQC	Siraf		2007.6001,5560	1:3
d	LQC-OR6	LQC	Siraf		2007.6001,9063	1:3
e	LQC-OR6	LQC	Williamson/ K103		17345	1:3
f	LQC-OR6	LQC	Williamson/ K107B		17575	1:3
g	LQC-CR1	LQC	Williamson/ K103		4476	1:3
h	LQC-L1	LQC	Williamson/ K124		663	1:3
i	LQC-L1	LQC	Williamson/ K103X		18094	1:3

LQC-OR7 - LQC



LQC-OR8 - LQC



LQC-OR9 - LQC

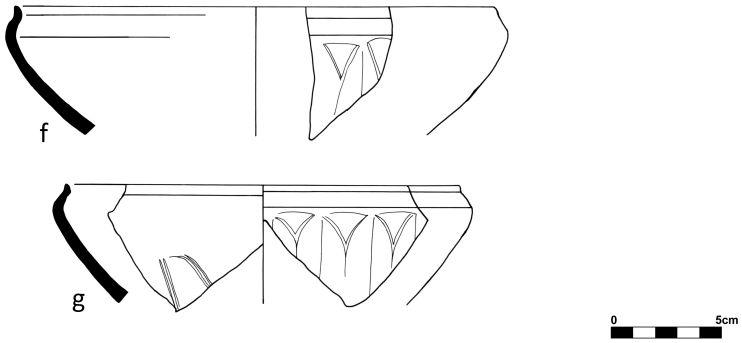


Figure 96 *a-d = LQC-OR7; e = LQC-OR8; f-g = LQC-OR9*

Figure 96						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	LQC-OR7	LQC	Siraf		2007.6001,5711	1:3
b	LQC-OR7	LQC	Siraf		2007.6001,5526	1:3
c	LQC-OR7	LQC	Siraf		2007.6001,7807	1:3
d	LQC-OR7	LQC	Williamson/ K103		4425	1:3
e	LQC-OR8	LQC	Williamson/ K103A		4450	1:3
f	LQC-OR9	LQC	Williamson/ K103X		17307	1:3
g	LQC-OR9	LQC	Williamson/ K103		17309	1:3

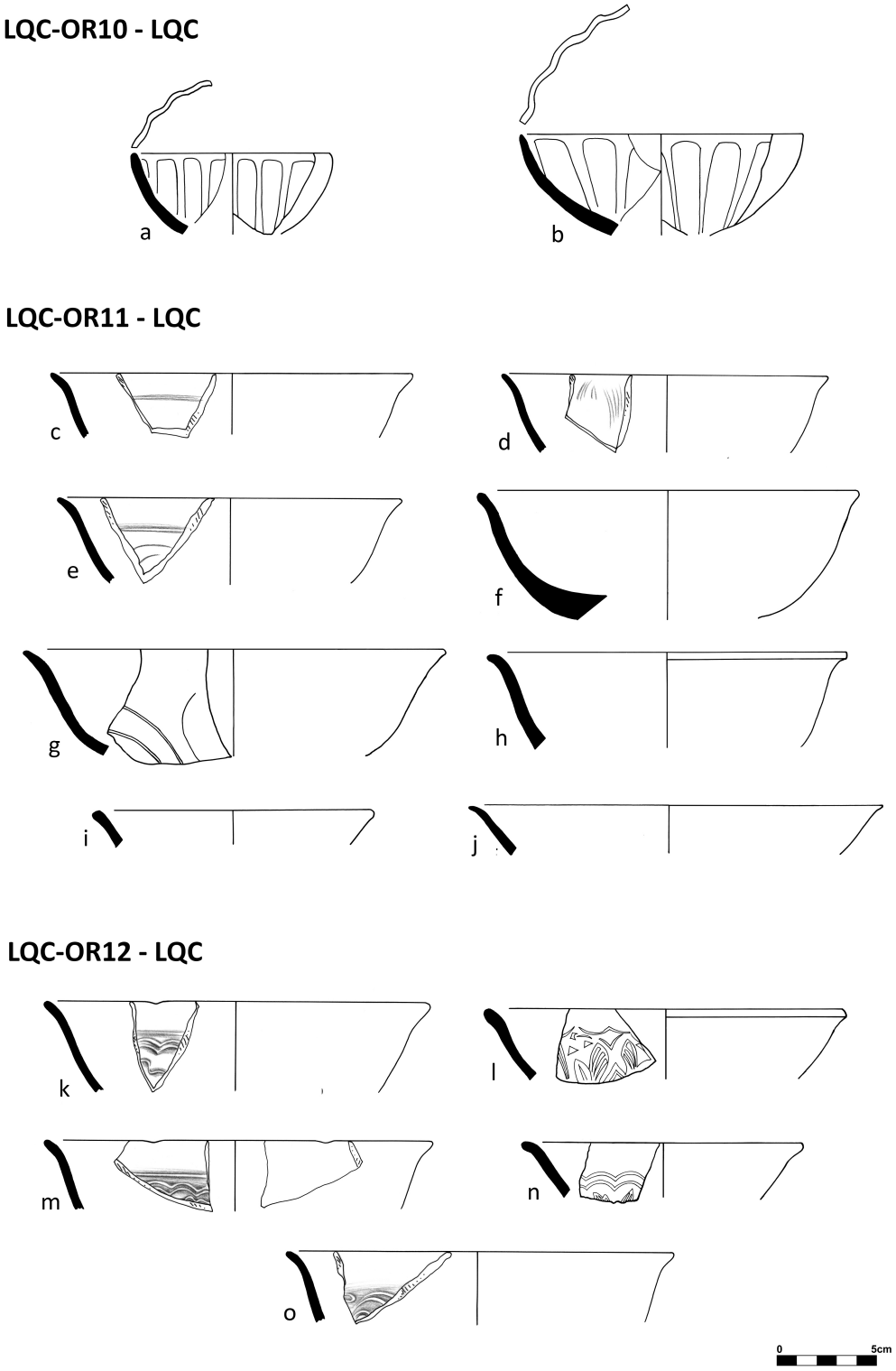
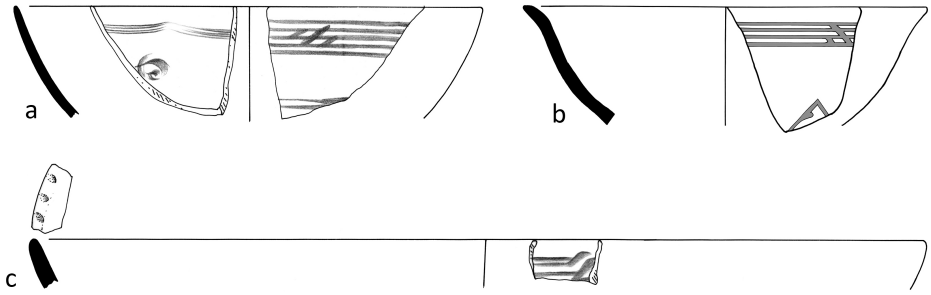


Figure 97 *a-b = LQC-OR10; c-j = LQC-OR11; k-o = LQC-OR12*

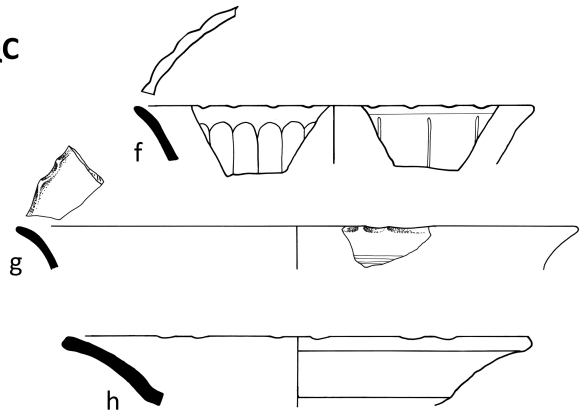
Figure 97						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	LQC-OR10	LQC	Williamson/ K103		4448	1:3
b	LQC-OR10	LQC	Williamson/ K103		4427	1:3
c	LQC-OR11	LQC	Siraf		2007.6001,265	1:3
d	LQC-OR11	LQC	Siraf		2007.6001,5512	1:3
e	LQC-OR11	LQC	Siraf		2007.6001,2362	1:3
f	LQC-OR11	LQC	Williamson/ K107		17392	1:3
g	LQC-OR11	LQC	Williamson/ AE4		1217	1:3
h	LQC-OR11	LQC	Williamson/ K107		17368	1:3
i	LQC-OR11	LQC	Williamson/ K103X		17332	1:3
j	LQC-OR11	LQC	Williamson/ AE3		1181	1:3
k	LQC-OR12	LQC	Siraf		2007.6001,5479	1:3
l	LQC-OR12	LQC	Williamson/ B4		12518	1:3
m	LQC-OR12	LQC	Siraf		2007.6001,5525	1:3
n	LQC-OR12	LQC	Williamson/ AE1		1212	1:3
o	LQC-OR12	LQC	Siraf		2007.6001,2274	1:3

LQC-OR13 - LQC



LQC-OR14 - LQC

LQC-OR15 - LQC



LQC-OR16 - LQC

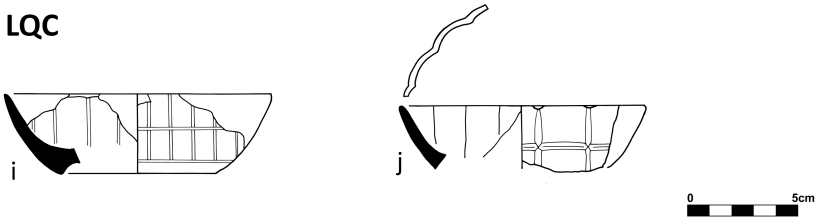


Figure 98 *a-c = LQC-OR13; d-e = LQC-OR14; f-h = LQC-OR15; i-j = LQC-OR16*

Figure 98						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	LQC-OR13	LQC	Siraf		2007.6001,289	1:3
b	LQC-OR13	LQC	Williamson/ K103X		18087	1:3
c	LQC-OR13	LQC	Siraf		2007.6001,5463	1:3
d	LQC-OR14	LQC	Williamson/ AE3		1207	1:3
e	LQC-OR14	LQC	Williamson/ A17		11850	1:3
f	LQC-OR15	LQC	Williamson/ AE4		1147	1:3
g	LQC-OR15	LQC	Siraf		2007.6001,5549	1:3
h	LQC-OR15	LQC	Williamson/ AA1C		1293	1:3
i	LQC-OR16	LQC	Williamson/ K103X		4434	1:3
j	LQC-OR16	LQC	Williamson/ K103		4440	1:3

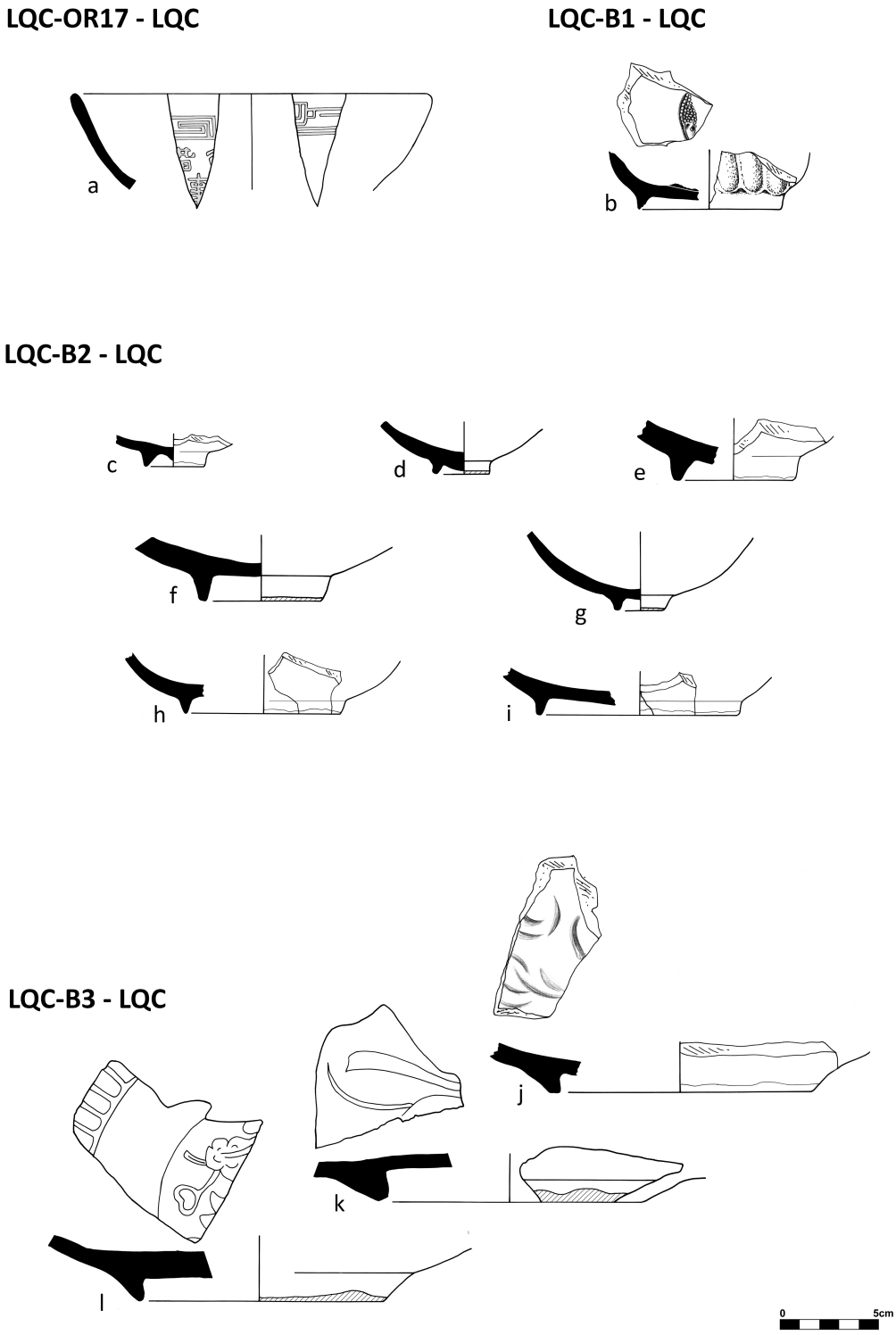


Figure 99 *a = LQC-OR17; b = LQC-B1; c-i = LQC-B2; j-l = LQC-B3*

Figure 99						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	LQC-OR17	LQC	Williamson/ K40B		17571	1:3
b	LQC-B1	LQC	Siraf		2007.6001,2281	1:3
c	LQC-B2	LQC	Siraf		2007.6001,6155	1:3
d	LQC-B2	LQC	Williamson/ AE3		1167	1:3
e	LQC-B2	LQC	Siraf		2007.6001,9033	1:3
f	LQC-B2	LQC	Williamson/ K130F		634	1:3
g	LQC-B2	LQC	Williamson			1:3
h	LQC-B2	LQC	Siraf		2007.6001,6122	1:3
i	LQC-B2	LQC	Siraf		2007.6001,2295	1:3
j	LQC-B3	LQC	Siraf		2007.6001,107	1:3
k	LQC-B3	LQC	Williamson/ K103		17608	1:3
l	LQC-B3	LQC	Williamson/ K103X		4445	1:3

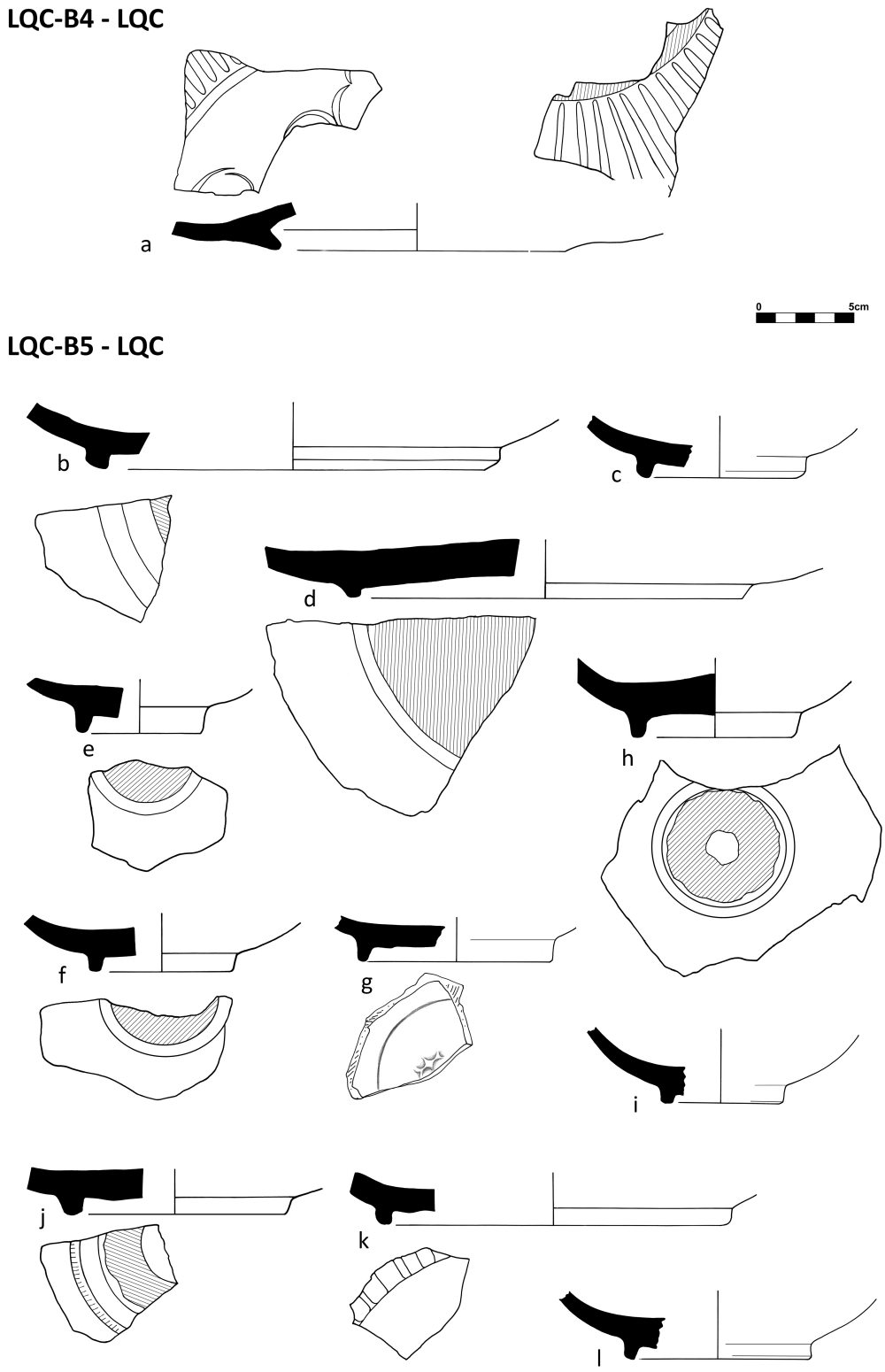


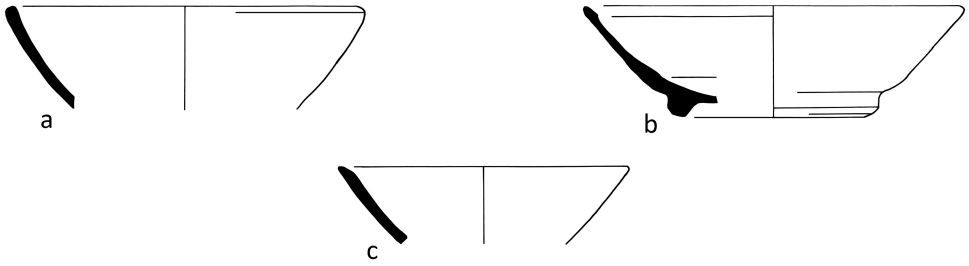
Figure 100 *a = LQC-B4; b-l = LQC-B5*

Figure 100						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	LQC-B4	LQC	Williamson/ AE1		1106	1:3
b	LQC-B5	LQC	Williamson/ AE4		1257	1:3
c	LQC-B5	LQC	Siraf		2007.6001,110	1:3
d	LQC-B5	LQC	Williamson/ AE		1268	1:3
e	LQC-B5	LQC	Williamson/ K131R		643	1:3
f	LQC-B5	LQC	Williamson/ AE1		1271	1:3
g	LQC-B5	LQC	Siraf		2007.6001,9050	1:3
h	LQC-B5	LQC	Williamson/ AE		18639	1:3
i	LQC-B5	LQC	Siraf		2007.6001,6174	1:3
j	LQC-B5	LQC	Williamson/ AA1B		1283	1:3
k	LQC-B5	LQC	Williamson/ K145B		920	1:3
l	LQC-B5	LQC	Siraf		2007.6001,5506	1:3

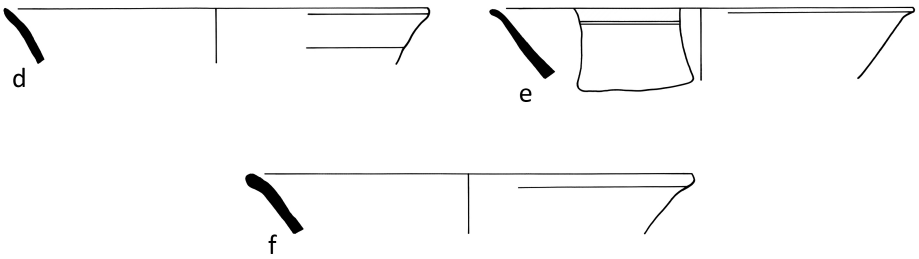
GGS – Other Green-Glazed Stonewares

Type	Form	Class(es)	Illustration	Concordance	Description
GGS-OR1	Bowl	STONE-GRY	Fig. 101: a-c	Priestman, 2005a: STO.G: 01	Hemispherical bowl with a pointed or rounded lip
GGS-OR2	Bowl	STONE-GRY	Fig. 101: d-f	Priestman, 2005a: STO.G: 02	Gently everted lip
GGS-OR3	Bowl	STONE-GRY	Fig. 101: g-h	Priestman, 2005a: STO.G: 03	Flanged rim
GGS-OR4	Dish	STONE-BUR	Fig. 103: a-h	Priestman, 2005a: STO.B: 01-02, STO.T: 01	Long thick flange
GGS-B1	Bowl	STONE-GRY	Fig. 102: a-g	Priestman, 2005a: STO.G: 04	Squared foot ring
GGS-B2	Bowl	STONE-GRY	Fig. 102: h-i	Priestman, 2005a: STO.G: 05	Flattened foot ring
GGS-B3	Bowl	STONE-BUR	Fig. 103: i-k	Priestman, 2005a: STO.B: 01	Wide recessed with a pointed foot
GGS-B4	Bowl	STONE-THAI	Fig. 104: a-b	Priestman, 2005a: STO.T: 01	Wide recessed with a squared foot
GGS-B5	Bowl	STONE.THAI	Fig. 104: c-d	Priestman, 2005a: STO.T: 03	High recessed with a squared or rounded foot

GGS-OR1 - STONE-GRY



GGS-OR2 - STONE-GRY



GGS-OR3 - STONE-GRY

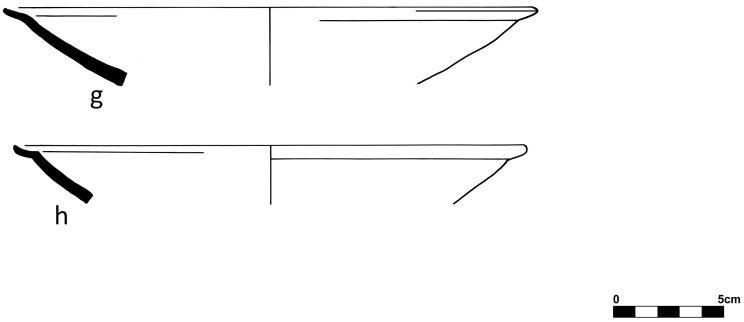


Figure 101 *a-c = GGS-OR1; d-f = GGS-OR2; g-h = GGS-OR3*

Figure 101						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGS-OR1	STONE-GRY	Williamson/ K154		891	1:3
b	GGS-OR1	STONE-GRY	Williamson/ K4		417	1:3
c	GGS-OR1	STONE-GRY	Williamson/ K103X		18090	1:3
d	GGS-OR2	STONE-GRY	Williamson/ K103X		18079	1:3
e	GGS-OR2	STONE-GRY	Williamson/ K124		411	1:3
f	GGS-OR2	STONE-GRY	Williamson/ K59		744	1:3
g	GGS-OR3	STONE-GRY	Williamson/ AE2		1160	1:3
h	GGS-OR3	STONE-GRY	Williamson/ AE1		1174	1:3

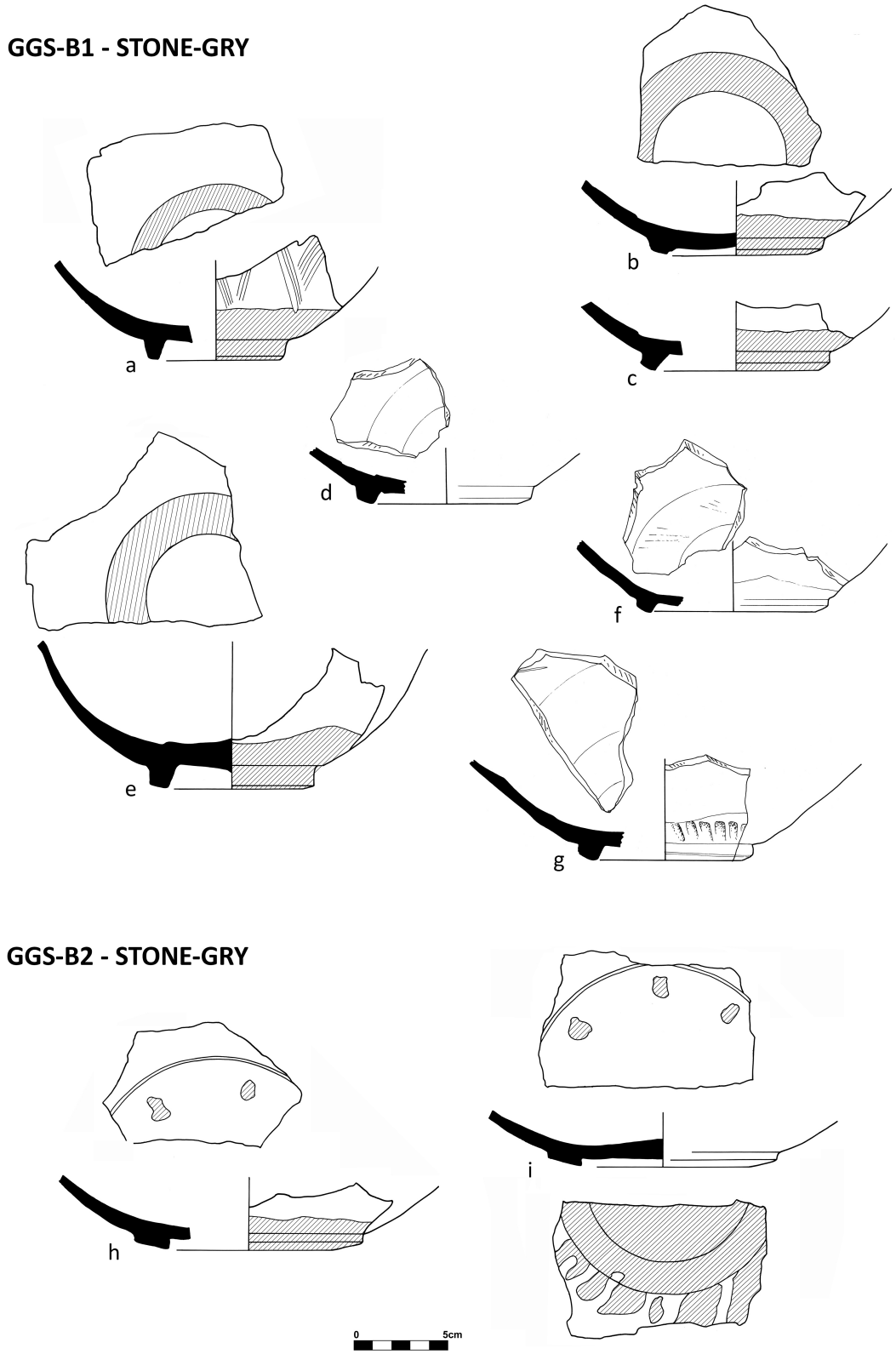
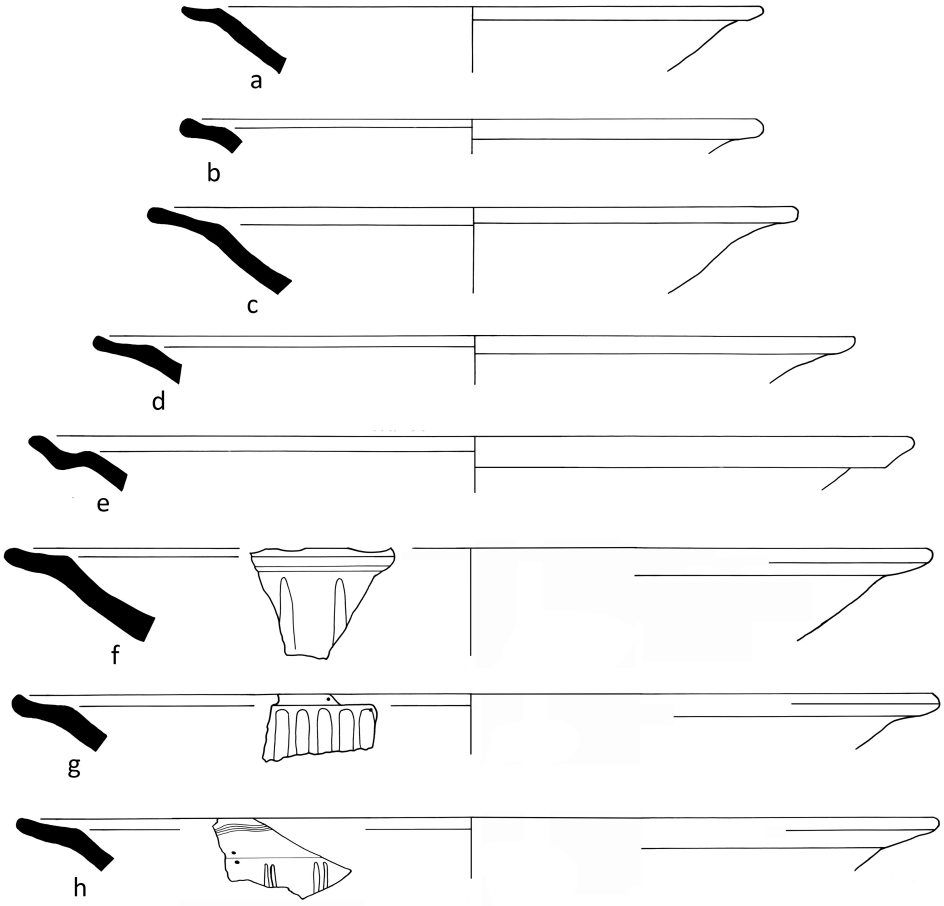


Figure 102 *a-g = GGS-B1; h-i = GGS-B2*

Figure 102						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGS-B1	STONE-GRY	Williamson/ K103		17312	1:3
b	GGS-B1	STONE-GRY	Williamson/ K103		18104	1:3
c	GGS-B1	STONE-GRY	Williamson/ K124		639	1:3
d	GGS-B1	STONE-GRY	Siraf		2007.6001,2387	1:3
e	GGS-B1	STONE-GRY	Williamson/ K107		17543	1:3
f	GGS-B1	STONE-GRY	Siraf		2007.6001,2047	1:3
g	GGS-B1	STONE-GRY	Siraf		2007.6001,56	1:3
h	GGS-B2	STONE-GRY	Williamson/ K124		701	1:3
i	GGS-B2	STONE-GRY	Williamson/ K124		702	1:3

GGS-OR4 - STONE-BUR



GGS-B3 - STONE-BUR

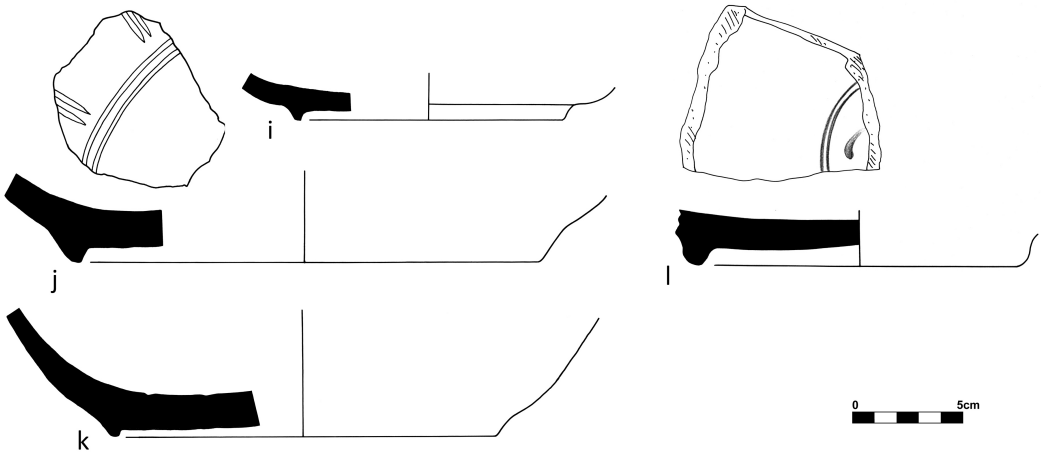


Figure 103 *a-h = GGS-OR4; i-k = GGS-B3*

Figure 103						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGS-OR4	STONE-BUR	Williamson/ K107B		17562	1:3
b	GGS-OR4	STONE-BUR	Williamson		1006	1:3
c	GGS-OR4	STONE-BUR	Williamson/ AA1A		1306	1:3
d	GGS-OR4	STONE-BUR	Williamson		988	1:3
e	GGS-OR4	STONE-BUR	Williamson		987	1:3
f	GGS-OR4	STONE-BUR	Williamson/ AA1A		17393	1:3
g	GGS-OR4	STONE-BUR	Williamson/ B16		12527	1:3
h	GGS-OR4	STONE-BUR	Williamson/ AA1B		1324	1:3
i	GGS-B3	STONE-BUR	Williamson/ K107		17574	1:3
j	GGS-B3	STONE-BUR	Williamson/ AA1B		1300	1:3
k	GGS-B3	STONE-BUR	Williamson/ AA1A		1305	1:3
l	GGS-B3	STONE-BUR	Siraf		2007.6001,9006	1:3

MTB – Martaban Brown-Glazed Stonewares

Type	Form	Class(es)	Illustration	Concordance	Description
MTB-CR1	Jar	MTB-1, MTB-2	Fig. 104: e-s	Priestman, 2005a: LIB: 01; MTB.1: 01; MTB.2: 01	Rolled rim

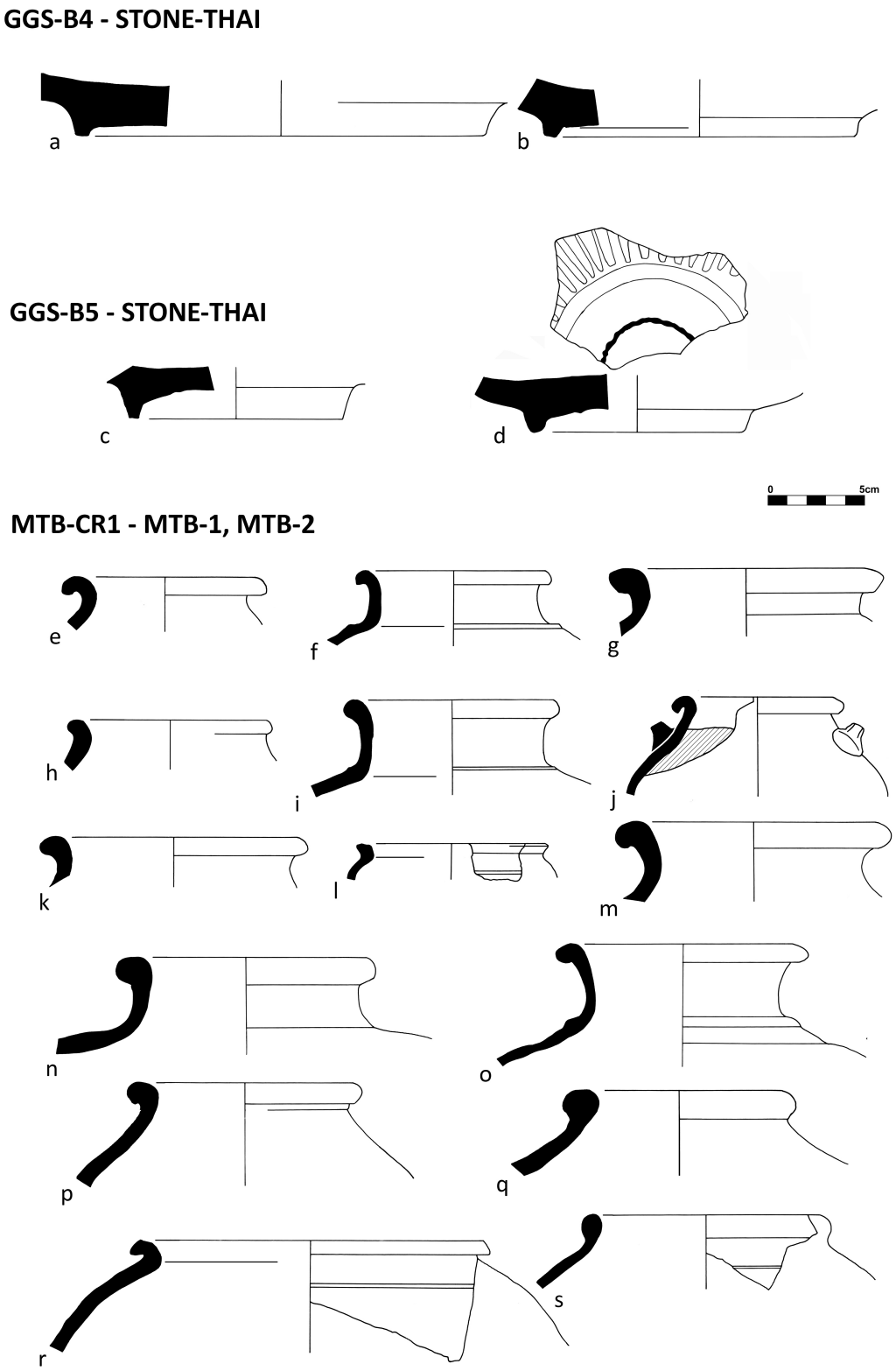


Figure 104 *a-b = GGS-B4; c-d = GGS-B5; e-s = MTB-CR1*

Figure 104						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	GGS-B4	STONE-THAI	Williamson/ H19		12651	1:3
b	GGS-B4	STONE-THAI	Williamson/ K44		893	1:3
c	GGS-B5	STONE-THAI	Williamson/ AA1C		1308	1:3
d	GGS-B5	STONE-THAI	Williamson/ K107		17538	1:3
e	MTB-CR1	MTB	Williamson/ K103		17595	1:3
f	MTB-CR1	MTB	Williamson/ K104		17587	1:3
g	MTB-CR1	MTB	Williamson/ K181		11634	1:3
h	MTB-CR1	MTB	Williamson/ K153		12018	1:3
i	MTB-CR1	MTB	Williamson/ K103		17657	1:3
j	MTB-CR1	MTB	Williamson/ AE2		11643	1:3
k	MTB-CR1	MTB	Williamson/ K124		850	1:3
l	MTB-CR1	MTB	Williamson/ SS36		8909	1:3
m	MTB-CR1	MTB	Williamson/ K103		17588	1:3
n	MTB-CR1	MTB	Williamson/ AE2		11632	1:3
o	MTB-CR1	MTB	Williamson/ K103		4469	1:3
p	MTB-CR1	MTB	Williamson/ K131Q		11651	1:3
q	MTB-CR1	MTB	Williamson/ AE2		11644	1:3
r	MTB-CR1	MTB	Williamson/ B20A		13724	1:3
s	MTB-CR1	MTB	Williamson/ K150		12015	1:3

POR – Porcelain

Type	Form	Class(es)	Illustration	Concordance	Description
POR-OR1	Bowl	XING, WW	Fig. 105	Priestman, 2005a: WWS.2: 01	Beaded lip
POR-OR2	Bowl	CWW, WW, QING, CBW.1-2	Fig. 106		Gently everted lip
POR-OR3	Bowl	QING, CBW.1-2	Fig. 107: a-c		Squared lip
POR-OR4	Bowl	WW	Fig. 107: d		Flared conical bowl with internal ribs and rim notches
POR-OR5	Bowl	WW.3	Fig. 107: e-g		Small bowl with an everted lip
POR-OR6	Bowl	WW	Fig. 108: a-l		Hemispherical form, simple rounded lip
POR-OR7	Dish	DEHUA	Fig. 108: j-q	Priestman, 2005a: DEH.1: 01	Small straight-sided dish with squared unglazed rim
POR-OR8	Bowl	DEHUA, WW	Fig. 109: a-f	Priestman, 2005a: WWS.10: 01	Straight-sided conical bowl, unglazed inside lip
POR-B1	Bowl	CWW, WW	Fig. 109: g-r		Low squared foot ring, often with a stepped interior
POR-B2	Bowl	WW, QING, CBW.1-2	Fig. 110		Tall and narrow foot ring
POR-B3	Bowl	CWW, WW, QING	Fig. 111: a-i	Priestman, 2005a: WWG.1: 01 (some)	Low pointed foot ring
POR-B4	Bowl	CBW.1-2	Fig. 111: j		Recessed foot similar to YUE-B7 but associated with CBW and does not have stacking marks
POR-B5	Bowl	WW	Fig. 111: k-l		Bi-disc base, flat turned foot ring, with a concave depression in the centre
POR-B6	Bowl	DEHUA	Not illustrated		Recessed base with a slight foot forming at the wall/base intersection
POR-CR1	Box	WW	Fig. 111: m-r		Small round box lid or base. Essentially the same form as YUE-CR1 but in porcelain

POR-OR1 - XING, WW

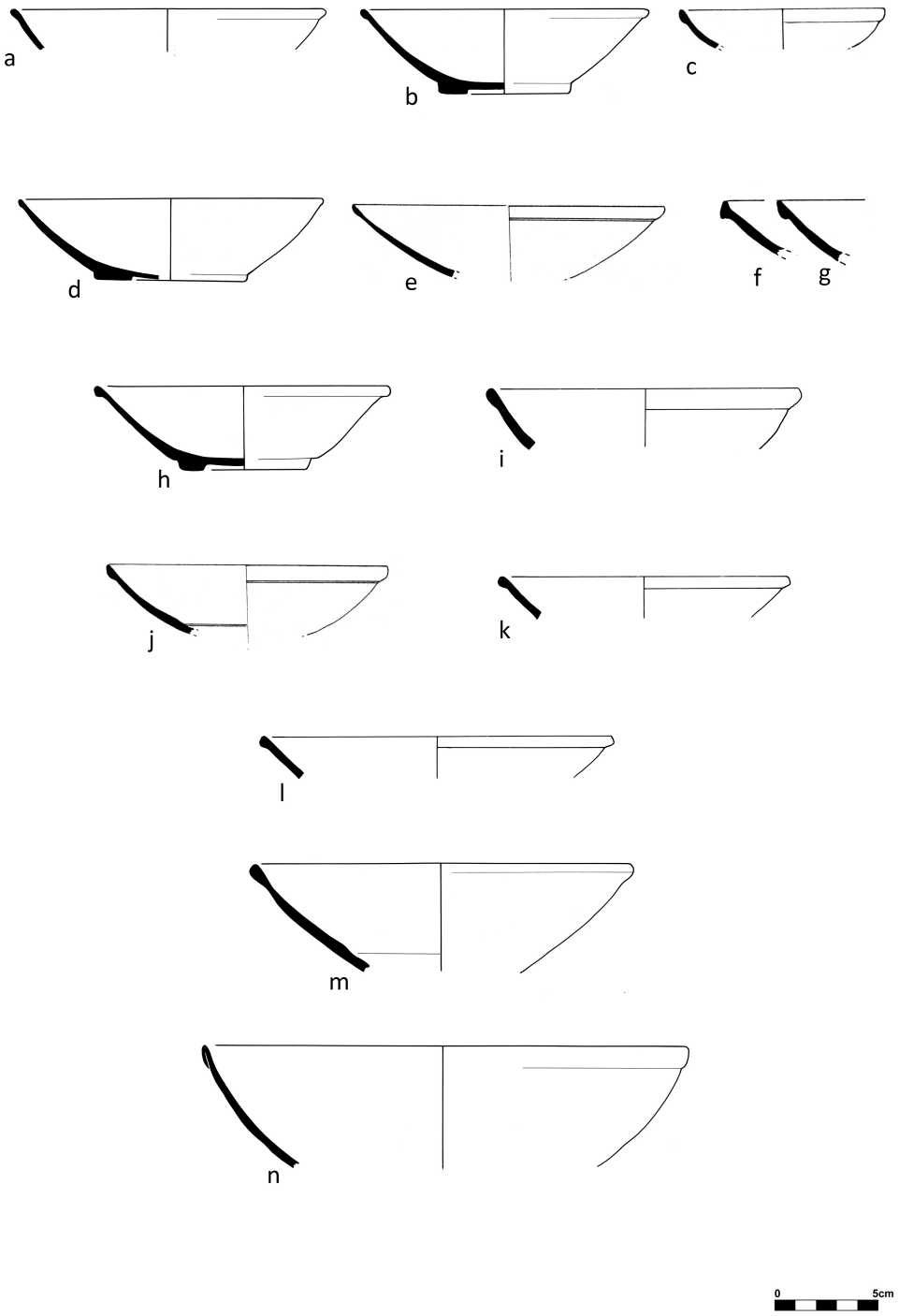


Figure 105 *a-n = POR-OR1*

Figure 105						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	POR-OR1	XING	Siraf		2007.6001,8107	1:3
b	POR-OR1	XING	Siraf		2007.6001,6930	1:3
c	POR-OR1	WW	Sohar	Kervran, 2004: fig. 37: 1	103	1:3
d	POR-OR1	XING	Siraf		2007.6001,8883	1:3
e	POR-OR1	WW	Sohar	Kervran, 2004: fig. 31: 4	2204.101	1:3
f	POR-OR1	WW	Sohar	Kervran, 2004: fig. 35: 6	2050.103	1:3
g	POR-OR1	WW	Sohar	Kervran, 2004: fig. 35: 5	2037.101	1:3
h	POR-OR1	WW	Siraf		2007.6001,8279	1:3
i	POR-OR1	WW	Williamson/ F10		13332	1:3
j	POR-OR1	WW	Sohar	Kervran, 2004: fig. 33: 9	2019.102	1:3
k	POR-OR1	WW	Williamson/ K145B		17440	1:3
l	POR-OR1	WW	Williamson/ F10		13333	1:3
m	POR-OR1	WW	Siraf		2007.6001,9081	1:3
n	POR-OR1	WW	Siraf		2007.6001,2432	1:3

POR-OR2 - WW, CWW, CBW, QING

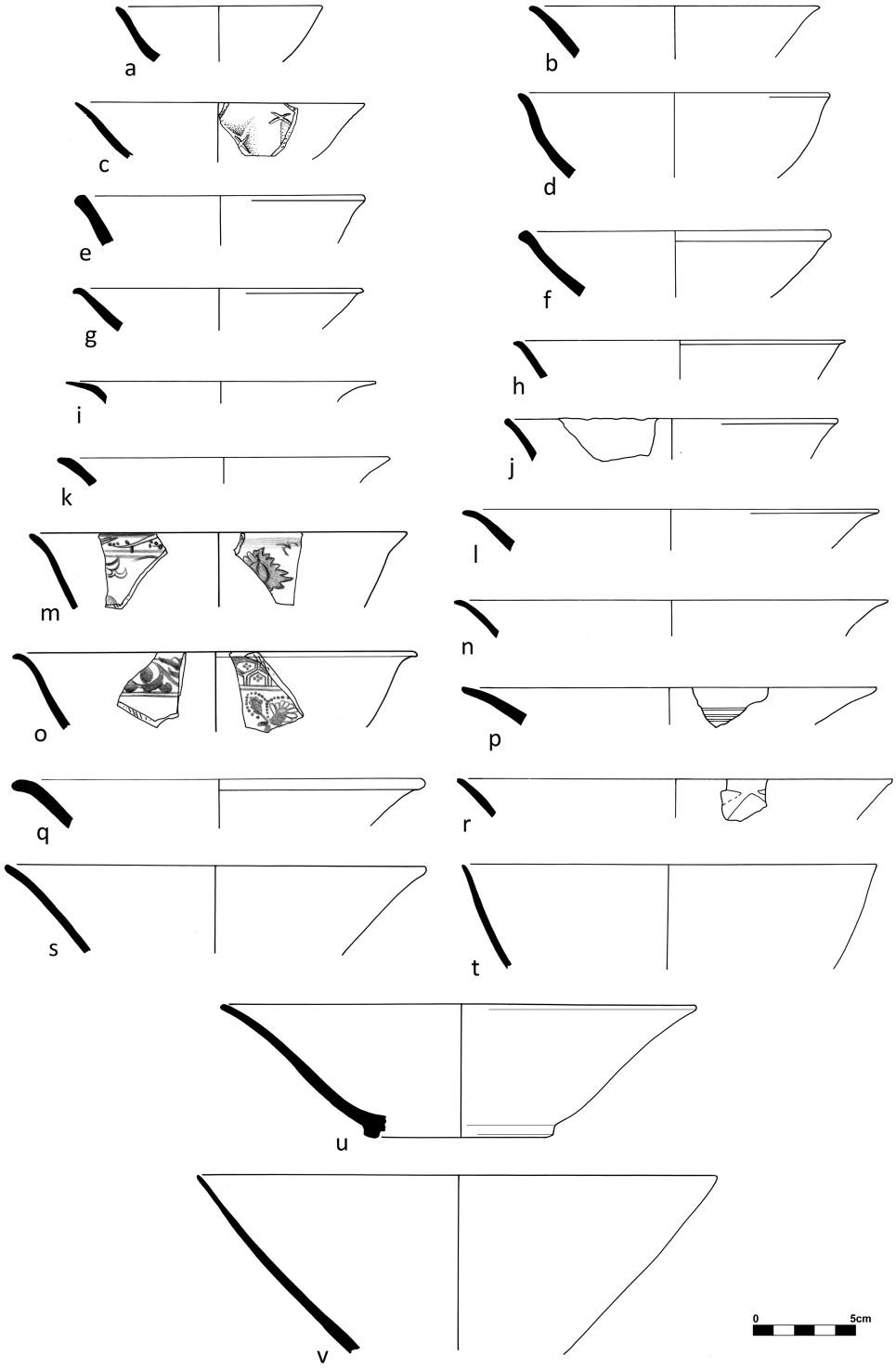
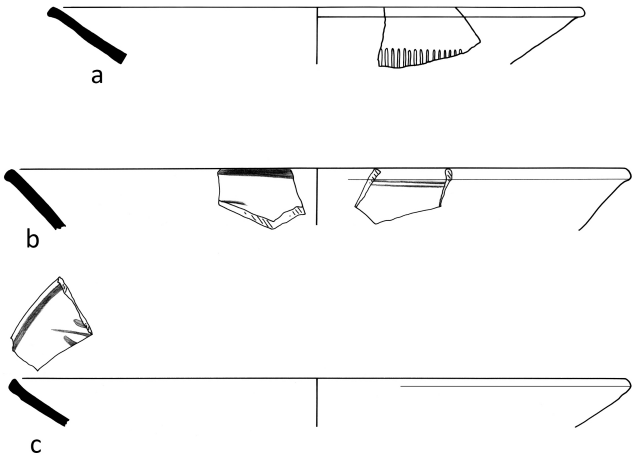


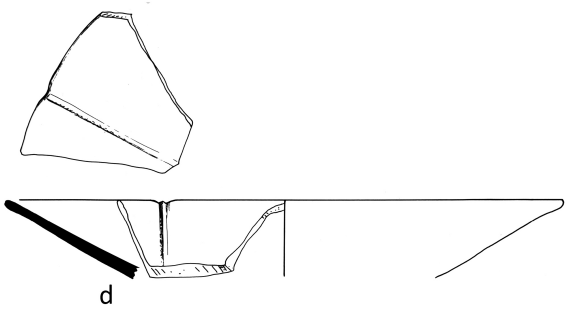
Figure 106 *a-v = POR-OR2*

Figure 106						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	POR-OR2	WW	Williamson/ K22		15770	1:3
b	POR-OR2	WW	Williamson/ K143		17442	1:3
c	POR-OR2	CWW	Siraf		2007.6001,4936	1:3
d	POR-OR2	WW	Williamson/ K47		753	1:3
e	POR-OR2	WW	Williamson/ K153		831	1:3
f	POR-OR2	WW	Williamson/ K146		17437	1:3
g	POR-OR2	WW	Williamson/ B20A		12797	1:3
h	POR-OR2	WW	Williamson/ K68		12112	1:3
i	POR-OR2	WW	Williamson/ K47		13230	1:3
j	POR-OR2	WW	Williamson/ S7		7896	1:3
k	POR-OR2	WW	Williamson/ K50B		12131	1:3
l	POR-OR2	WW	Williamson/ K107A		17465	1:3
m	POR-OR2	CBW	Siraf		2007.6001,6131	1:3
n	POR-OR2	WW	Williamson/ AA1B		12375	1:3
o	POR-OR2	CBW	Siraf		2007.6001,6128	1:3
p	POR-OR2	WW	Williamson/ AE1		1158	1:3
q	POR-OR2	WW	Williamson/ F10		12858	1:3
r	POR-OR2	CWW	Williamson/ K70		11698	1:3
s	POR-OR2	WW	Siraf		2007.6001,6726	1:3
t	POR-OR2	QING	Siraf		2007.6001,4937	1:3
u	POR-OR2	WW	Siraf		2007.6001,8619	1:3
v	POR-OR2	WW	Siraf		2007.6001,5012	1:3

POR-OR3 - QING, CBW



POR-OR4 - WW



POR-OR5 - WW

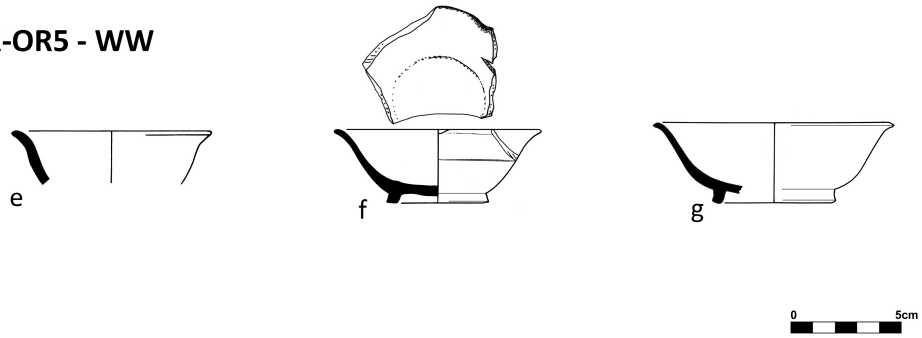
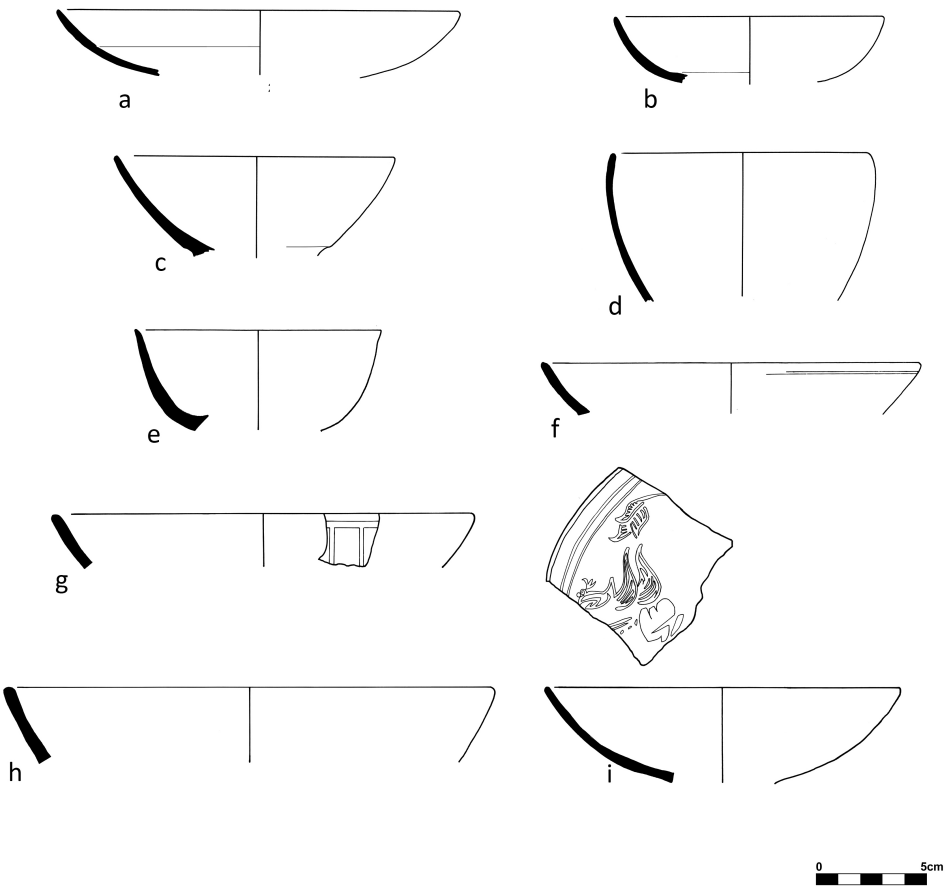


Figure 107 a-c = POR-OR3; d = POR-OR4; e-g = POR-OR5

Figure 107						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	POR-OR3	QING	Williamson/ B12		13367	1:3
b	POR-OR3	CBW	Siraf		2007.6001,5612	1:3
c	POR-OR3	CBW	Siraf		2007.6001,9072	1:3
d	POR-OR4	WW	Siraf		2007.6001,3731	1:3
e	POR-OR5	WW	Williamson/ K51		12166	1:3
f	POR-OR5	WW	Siraf		2007.6001,5355	1:3
g	POR-OR5	WW	Siraf		2007.6001,9208	1:3

POR-OR6 - WW



POR-OR7 - DEHUA

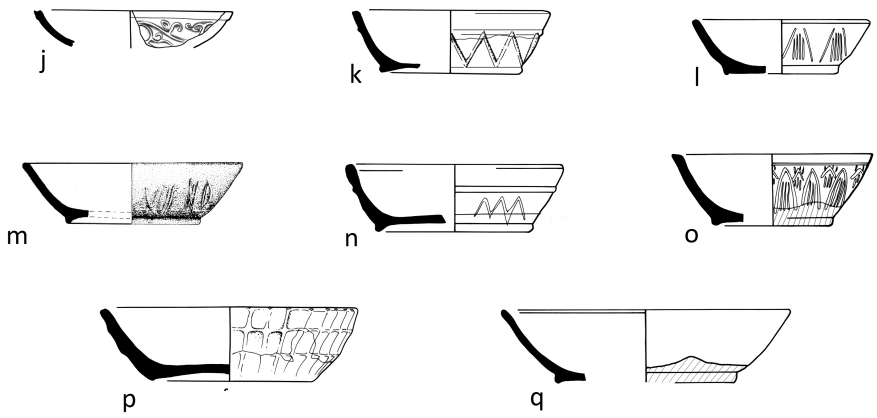


Figure 108 *a-l = POR-OR6; j-q = POR-OR7*

Figure 108						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	POR-OR6	WW	Siraf		2007.6001,5973	1:3
b	POR-OR6	WW	Siraf		2007.6001,2149	1:3
c	POR-OR6	WW	Siraf		2007.6001,8494	1:3
d	POR-OR6	WW	Siraf		2007.6001,8434	1:3
e	POR-OR6	WW	Williamson/ AA1A		12371	1:3
f	POR-OR6	WW	Williamson/ F10		13334	1:3
g	POR-OR6	WW	Williamson/ K107		17559	1:3
h	POR-OR6	WW	Williamson/ K131M		12250	1:3
i	POR-OR6	WW	Williamson/ AE3		17461	1:3
j	POR-OR7	DEHUA	Siraf		2007.6001,5953	1:3
k	POR-OR7	DEHUA	Siraf		2007.6001,6239	1:3
l	POR-OR7	DEHUA	Williamson/ K103		4466	1:3
m	POR-OR7	DEHUA	Manda	Chittick, 1984: fig. 33: a		1:3
n	POR-OR7	DEHUA	Williamson/ B4		12786	1:3
o	POR-OR7	DEHUA	Williamson/ K103		4444	1:3
p	POR-OR7	DEHUA	Siraf		2007.6001,6048	1:3
q	POR-OR7	DEHUA	Williamson/ K103		17319	1:3

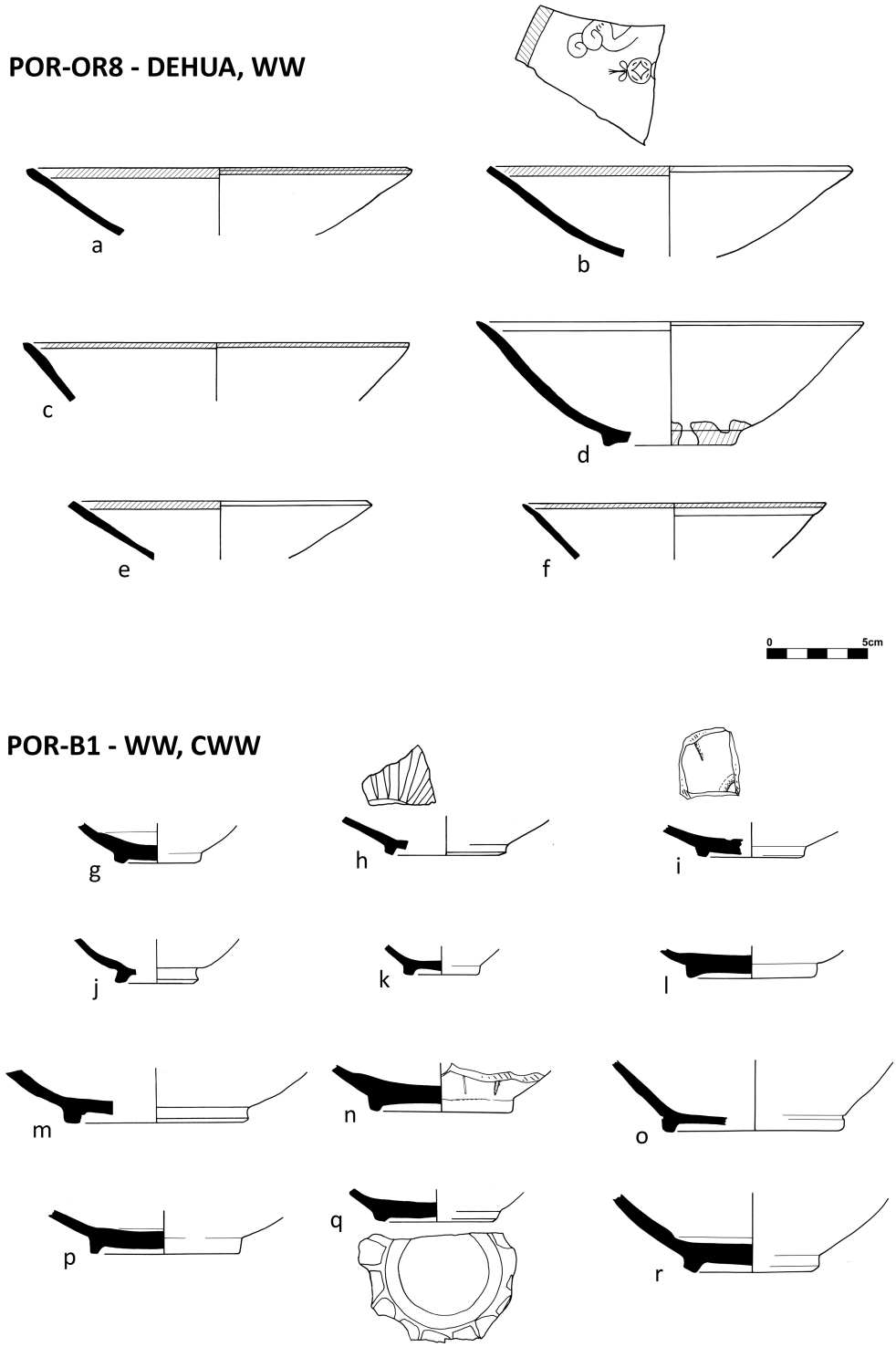


Figure 109 *a-f = POR-OR8; g-r = POR-B1*

Figure 109						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	POR-OR8	WW	Williamson/ K103		17822	1:3
b	POR-OR8	WW	Williamson/ K103		4455	1:3
c	POR-OR8	WW	Williamson/ K103		17834	1:3
d	POR-OR8	DEHUA	Williamson/ K103		4435	1:3
e	POR-OR8	WW	Williamson/ K103		17830	1:3
f	POR-OR8	WW	Williamson/ K107B		17466	1:3
g	POR-B1	WW	Siraf		2007.6001,5771	1:3
h	POR-B1	WW	Williamson/ K138		12104	1:3
i	POR-B1	WW	Siraf		2007.6001,8741	1:3
j	POR-B1	WW	Williamson/ K143		17439	1:3
k	POR-B1	WW	Siraf		2007.6001,9200	1:3
l	POR-B1	WW	Siraf		2007.6001,8886	1:3
m	POR-B1	WW	Williamson/ SS36		8813	1:3
n	POR-B1	CWW	Siraf		2007.6001,6050	1:3
o	POR-B1	WW	Siraf		2007.6001,7995	1:3
p	POR-B1	WW	Siraf		2007.6001,6626	1:3
q	POR-B1	CWW	Williamson/ B20B		12785	1:3
r	POR-B1	WW, CWW	Siraf		4611	1:3

POR-B2 - WW, QING, CBW

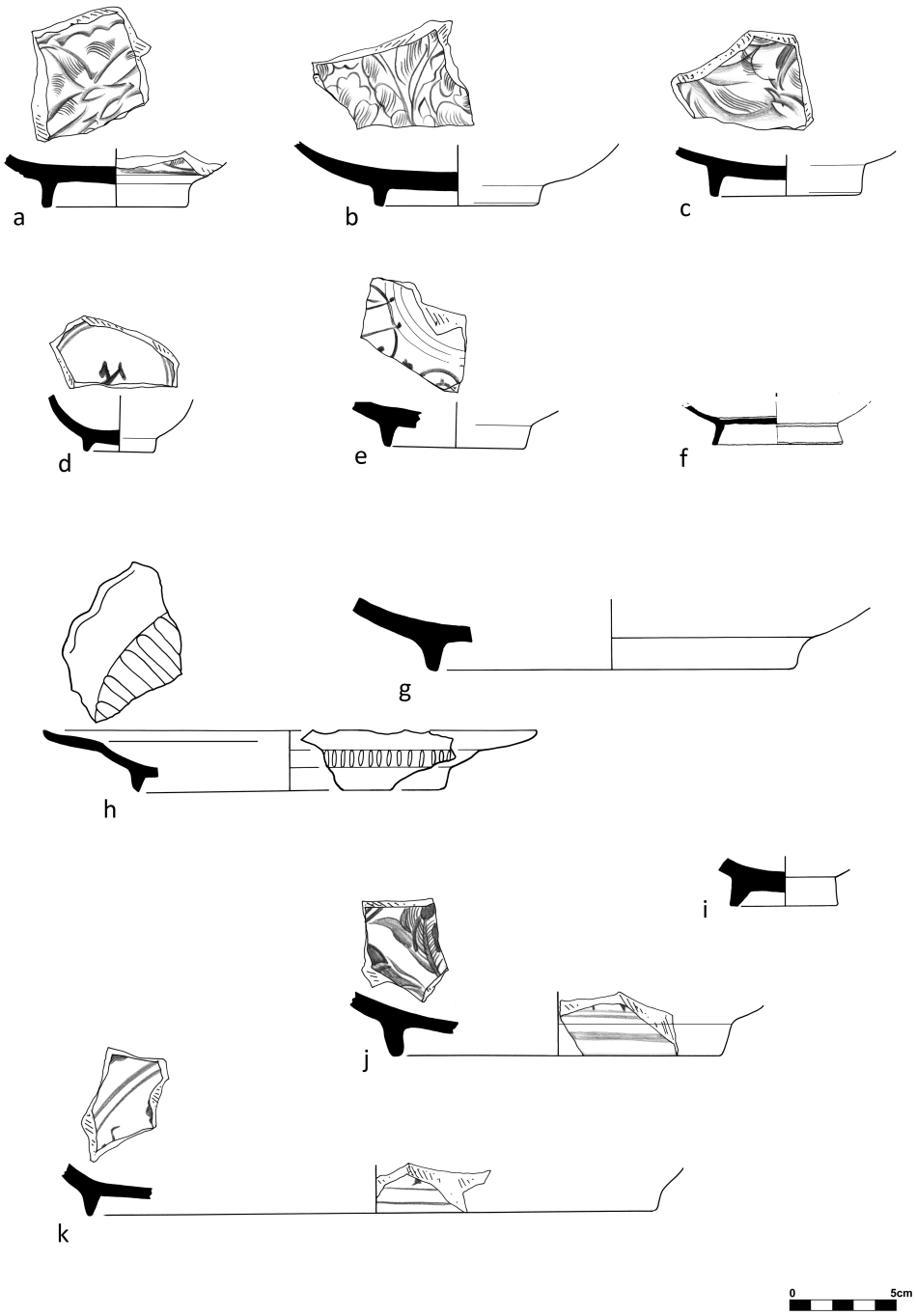
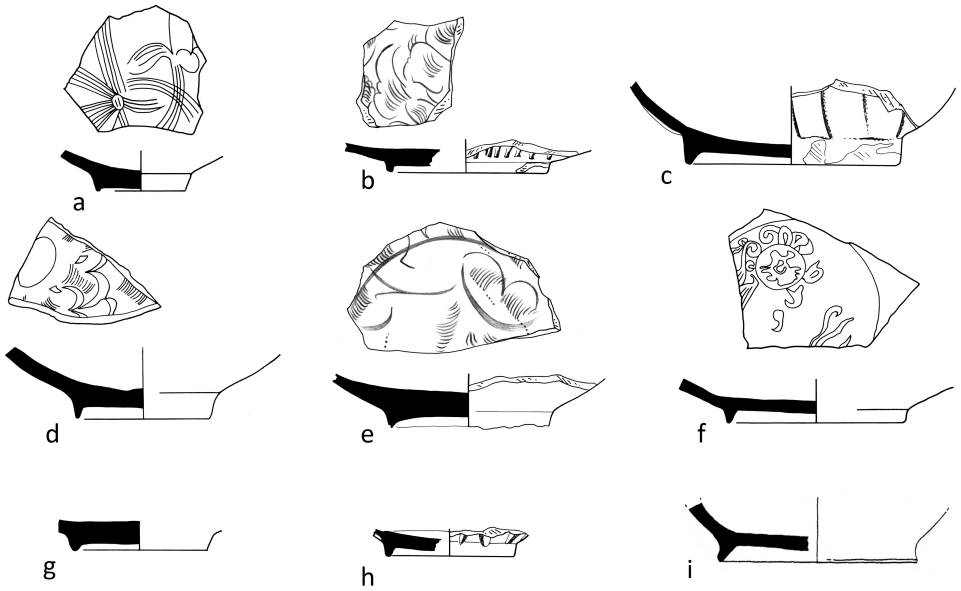


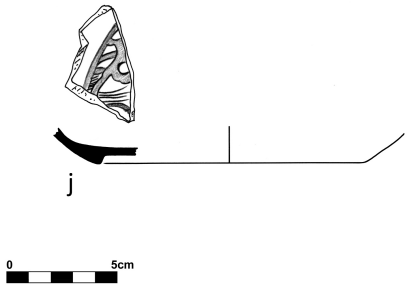
Figure 110 *a-k = POR-B2*

Figure 110						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	POR-B2	QING	Siraf		2007.6001,9083	1:3
b	POR-B2	QING	Siraf		2007.6001,7554	1:3
c	POR-B2	QING	Siraf		2007.6001,9220	1:3
d	POR-B2	CBW	Siraf		2007.6001,6091	1:3
e	POR-B2	CBW	Siraf		2007.6001,9227	1:3
f	POR-B2	WW	Sohar	Kervran, 2004: fig. 30: 19	1169.101	1:3
g	POR-B2	WW	Williamson/ AAP		15780	1:3
h	POR-B2	WW	Williamson/ K145B		12618	1:3
i	POR-B2	WW	Williamson/ H20C		3211	1:3
j	POR-B2	CBW	Siraf		2007.6001,9010	1:3
k	POR-B2	CBW	Siraf		2007.6001,5887	1:3

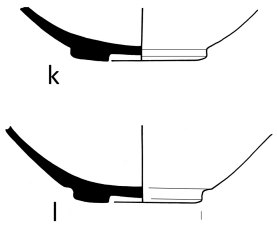
POR-B3 - CWW, WW, QING



POR-B4 - CBW



POR-B5 - WW



POR-CR1 - XING, WW, YUE.4

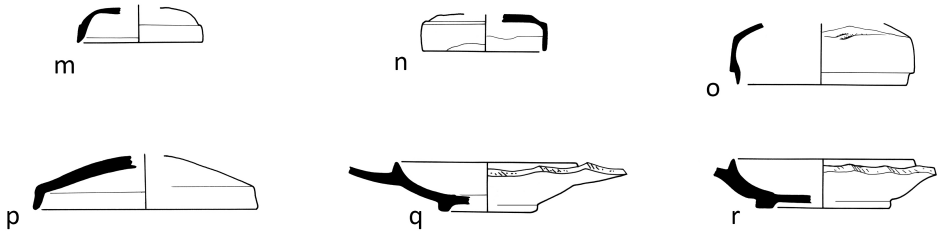


Figure 111 *a-i = POR-B3; j = POR-B4; k-l = POR-B5; m-r = POR-CR1*

Figure 111						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	POR-B3	QING	Williamson/ AE1		1155	1:3
b	POR-B3	QING	Siraf		2007.6001,2785	1:3
c	POR-B3	CWW	Siraf		2007.6001,8389	1:3
d	POR-B3	QING	Williamson/ K170		11689	1:3
e	POR-B3	QING	Siraf		2007.6001,4810	1:3
f	POR-B3	QING	Williamson/ K103		4467	1:3
g	POR-B3	WW	Williamson/ K131S		13048	1:3
h	POR-B3	CWW	Siraf		2007.6001,5217	1:3
i	POR-B3	WW	Sohar	Kervran, 2004: fig. 22: 12	587.2	1:3
j	POR-B4	CBW	Siraf		2007.6001,8930	1:3
k	POR-B5	WW	Siraf		2007.6001,8602	1:3
l	POR-B5	WW	Siraf		2007.6001,8001	1:3
m	POR-CR1	WW	Siraf		2007.6001,9310	1:3
n	POR-CR1	XING	Siraf		2007.6001,3679	1:3
o	POR-CR1	WW	Siraf		2007.6001,6279	1:3
p	POR-CR1	STONE.N-ID	Siraf		2007.6001,5328	1:3
q	POR-CR1	WW	Siraf		2007.6001,8607	1:3
r	POR-CR1	XING	Siraf		2007.6001,8245	1:3

HAR – Hard Lime-Spalled Coarse Wares

Type	Form	Class(es)	Illustration	Concordance	Description
HAR-OR1	Bowl	HARLIM, REBROS, CREAC	Fig. 112	Priestman, 2005a: SM.A: 01 (some); SM.RC: 01 (some)	Thickened lip with angled outer face, triangular section
HAR-OR2	Bowl	HARLIM, REBROS, CREAC	Fig. 113		Thickened, rounded lip
HAR-OR3	Bowl	HARLIM, REBROS, CREAC	Fig. 114	Priestman, 2005a: SM.RC: 01 (some); GRO: 01 (some)	Downward-angled external flange
HAR-OR4	Bowl	HARLIM, REBROS	Fig. 115: a-d	Priestman, 2005a: SM.B: 01 (some)	Hooked flange
HAR-OR5	Bowl	HARLIM, REBROS	Fig. 115: e-i		Thickened lip with angled outer face, triangular section with defined bottom lip
HAR-OR6	Closed Bowl	REBROS	Fig. 116: a-e		Closed bowl with a sharply everted flange rim
HAR-OR7	Bowl	HARLIM, REBROS	Fig. 116: f-j	Priestman, 2005a: SM.A: 01 (some)	Angled lip, with an internal recess, rather mixed category
HAR-OR8	Bowl	HARLIM, REBROS, CREAC	Figs. 117-118	Priestman, 2005a: GRO: 01 (some)	Heavy flange-rimmed bowl, sometimes referred to as "the Siraf pie dish"
HAR-OR9	Bowl	HARLIM, CREAC	Fig. 119	Priestman, 2005a: GRO: 01 (some)	Downward angled, flange-rimmed bowl, requires some further refinement
HAR-OR10	Closed Bowl	HARLIM, REBROS	Fig. 120: a-h		Closed bowl
HAR-OR11	Closed Bowl	REBROS	Fig. 120: i-k		Closed straight-sided bowl, rather mixed
HAR-OR12	Closed Bowl	REBROS, CREAC	Fig. 121: a-f		Closed bowl, with strap handles, and a flange rim
HAR-OR13	Closed Bowl	REBROS	Fig. 121: g-l		Closed bowl, or wide-mouthed jar, with handles, an 'S' form rim and shoulder
HAR-OR14	Closed Bowl	HARLIM, CREAC	Fig. 122: a-d	Priestman, 2005a: SM.RC: 01 (some)	Triangular section rim, with a well defined recess below the external lip
HAR-OR15	Bowl	CREAC	Fig. 122: e-f		Clubbed rim with a cavetto zone below the lip
HAR-OR16	Closed Bowl	CREAC	Fig. 122: g		Closed, steep-sided bowl, with a squared flange, and multiple ribs around the rim and exterior
HAR-OR17	Closed Bowl	CREAC	Fig. 123: a-g	Priestman, 2005a: GRO: 01 (some)	Gently carinated bowl, with short strap handles
HAR-OR18	Measuring cup	CREAC	Fig. 123: h-j		Small, flat-bottomed, straight-sided vessel

Type	Form	Class(es)	Illustration	Concordance	Description
HAR-OR19	Bowl	CREAC	Fig. 124		Crude, straight-sided conical bowl
HAR-OR20	Dish	CREAC	Fig. 125		Large dish, with a long, gently angled flange section
HAR-OR21	Dish	CREAC	Fig. 126		Wide, flat-bottomed dish, with short, angled sides
HAR-OR22	Vat	HARLIM	Fig. 127: a-d		Large, wide-mouthed vessel, with a flange lip, could be placed with LISV types but walls are relatively thin
HAR-OR23	Dish lamp	CREAC	Not illustrated		Small dish lamp with an applied handle and a pulled spout. Similar to SAM-OR19 but unglazed
HAR-CR1	Jar	CLINKY	Fig. 128: a-d	Kennet, 2004: Type 81; Priestman, 2005a: CL: 01	Rolled rim with an 'S' profile
HAR-CR2	Jar	CLINKY	Fig. 128: e-f	Priestman, 2005a: CL: 02	Equivalent to main CLINKY form in the Kush classification
HAR-CR3	Jar	HARLIM	Fig. 128: g-n	Kennet, 2004: Type 75; Priestman, 2005a: SM.B: 05 (some); SM.C: 03 (some); SM.RC: 02 (some)	Complex offset form with multiple steps and rims
HAR-CR4	Jar	HARLIM	Fig. 128: o-q	Kennet, 2004: Type 76; Priestman, 2005a: SM.B: 05	Complex rim similar to CR3 but with a projecting collar
HAR-CR5	Jar	CREAC, HARLIM, REBROS	Fig. 129		Crudely made jar with a simple rounded everted rim and a strap handle attached to the rim and shoulder
HAR-CR6	Jar	REBROS	Fig. 130: a-e		Wide mouth with an 'S' shaped rim profile
HAR-CR7	Jar	REBROS	Fig. 130: f-g		Everted-rim jar with a slight projection of the lip
HAR-CR8	Jar	REBROS	Fig. 130: h-k		Rolled and folded beaded rim
HAR-CR9	Jar	HARLIM, REBROS	Fig. 131: a-i	Priestman, 2005a: SM.B: 07 (some)	Offset rim with a rounded lip, rather variable
HAR-CR10	Jar	HARLIM, REBROS	Fig. 131: j-p		Folded flange rim, with a triangular section, may require further sub-division
HAR-CR11	Jar	HARLIM, REBROS	Fig. 132	Priestman, 2005a: SM.B: 04 (some)	Closed-mouthed jar with a rolled and folded rim

Type	Form	Class(es)	Illustration	Concordance	Description
HAR-CR12	Jar	CREAC, REBROS	Figs. 133-134		Collar-necked jar with extensive ribbing, and a thick strap handle attached to the rim and shoulder
HAR-CR13	Vat	CREAC	Fig. 135		Wide-mouthed, barrel-shaped vat, with a heavy internal recess for a lid
HAR-CR14	Jar	HARLIM	Fig. 136: a-b		Wide-mouthed jar, with a thick folded rim, and a second collar projection forming a deep trough between the collar and the rim
HAR-CR15	Jar	HARLIM	Fig. 136: c		Rolled and folded rim
HAR-CR16	Jar	HARLIM	Fig. 136: d-f	Priestman, 2005a: SM.C: 03 (some)	Everted lip with a projecting collar mid-way down the neck
HAR-CR17	Jar	HARLIM	Fig. 136: g-i		Collar-necked jar with a folded and flattened rim, and a strap handle attached to the neck and shoulder
HAR-CR18	Jar	REBROS	Not illustrated		Not described
HAR-CR19	Jar	REBROS	Not illustrated		Not described
HAR-CR20	Jar	CREAC	Not illustrated		Complex banded narrow jar neck and rim
HAR-CR21	Base	CREAC, HARLIM	Not illustrated		Solid pedestal base
HAR-H1	Jar	REBROS	Not illustrated		Strap handle
HAR-SP1	Jar	REBROS	Not illustrated		Flared mouthed spout
HAR-LISV0	Storage vessel	FINLIM, HARLIM, REBROS	Not illustrated		Generic category
HAR-LISV1	Storage vessel	CREAC, HARLIM, REBROS, SPORC	Figs. 137-138	Priestman, 2005a: SM.RC: 03 (some)	Vertical collar-mouthed storage vessel, with a thickened lip. Multiple deep grooves running round the outer face and thick, rounded strap handles attached to the shoulder
HAR-LISV2	Storage vessel	REBROS	Fig. 139: a-d	Priestman, 2005a: SM.RC: 03 (some)	Necked storage jar with a thickened lip with a central groove in the outer face
HAR-LISV3	Storage vessel	HARLIM, REBROS	Figs. 139: e-h; 140: a-c	Priestman, 2005a: Siraf: LISV3; SM.RC: 03 (some)	Vertical-necked storage jar with a squared outer rim-face, and a groove defining the bottom of the rim. Often the neck and shoulder have incised decoration
HAR-LISV4	Storage vessel	HARLIM, REBROS	Fig. 140: d-f	Priestman, 2005a: Siraf: LISV3	Vertical-necked storage jar with a slightly thickened, rounded rim. Often the

Type	Form	Class(es)	Illustration	Concordance	Description
					neck and shoulder have incised decoration
HAR-LISV5	Storage vessel	HARLIM	Fig. 141		Vertical-necked storage jar with a slightly closed mouth and a barrel-shaped neck portion. Often the neck has incised meandering bands
HAR-LISV6	Storage vessel	HARLIM	Fig. 142: a-c		Vertical-necked storage jar with a thickened clubbed rim
HAR-LISV7	Storage vessel	CREAC	Fig. 142: d-e		Vertical-necked storage jar with a squared outer rim-face and deep ribbing down the neck
HAR-LISV8	Storage vessel	CREAC, HARLIM	Fig. 142: f-g		Vertical-necked storage jar with a ribbed neck and outer rim-face
HAR-LISV9	Storage vessel	CREAC, HARLIM,	Fig. 143: a-e		Hole-mouthed storage vessel with a rounded lip, and ribbing down the neck portion
HAR-LISV10	Storage vessel	HARLIM	Fig. 143: f-i		Hole-mouthed storage jar, with a small collar below the lip
HAR-LISV11	Storage vessel	REBROS	Fig. 144: a-e		Wide, closed-mouthed storage vessel, with a slightly thickened lip and multiple grooves around the shoulder
HAR-LISV12	Storage vessel	HARLIM	Fig. 144: f-i		Closed, wide-mouthed, shoulderless storage jar, with a thickened rounded lip
HAR-LISV13	Storage vessel	REBROS	Not illustrated		Large storage jar, with a rolled and folded rim, and an angled lower face
HAR-LISV14	Storage vessel	FINLIM	Fig. 145: a-b		Closed, wide-mouthed, shoulderless, storage jar with a thickened, flat-topped rim, and small pierced handles attached below the rim for a strong tie covering
HAR-LISV15	Vat	HARLIM, REBROS	Fig. 145: c-e	Priestman, 2005a: SM.B: 02 (some); SM.RC: 03 (some)	Large, wide-mouthed vat, with a sharply everted, horizontally aligned, flange rim. Closely related to HAR-OR22 but a larger version with a ridge below the rim exterior

HAR-OR1 - HARLIM, REBROS, CREAC

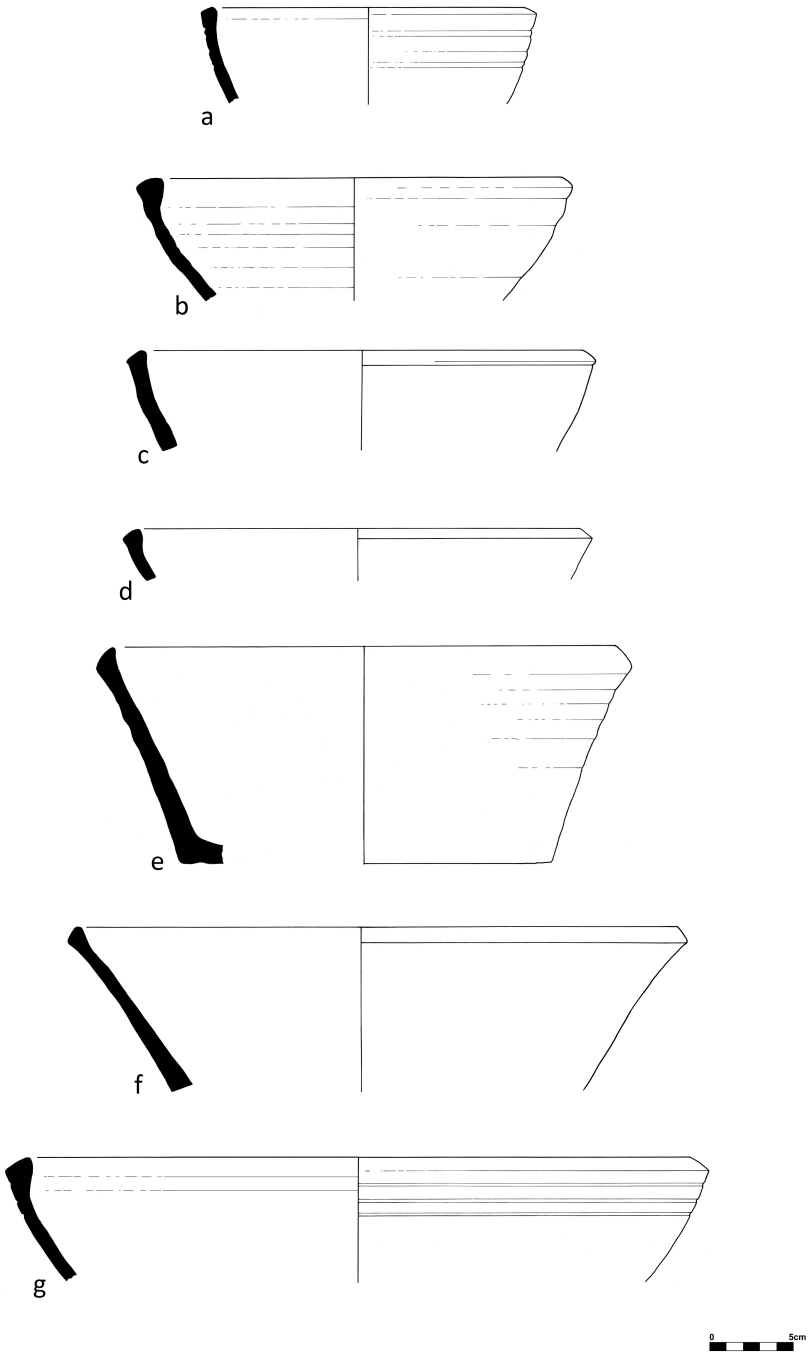


Figure 112 *a-g = HAR-OR1*

Figure 112						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR1	CREAC	Siraf		2007.6001,2271	1:4
b	HAR-OR1	CREAC	Siraf		2007.6001,4777	1:4
c	HAR-OR1	HARLIM	Williamson/ D22		14490	1:4
d	HAR-OR1	HARLIM	Williamson/ B10C		15043	1:4
e	HAR-OR1	REBROS	Siraf		2007.6001,3046	1:4
f	HAR-OR1	HARLIM	Williamson/ F7		1849	1:4
g	HAR-OR1	CREAC	Siraf		2007.6001,4617	1:4

HAR-OR2 - HARLIM, REBROS, CREAC

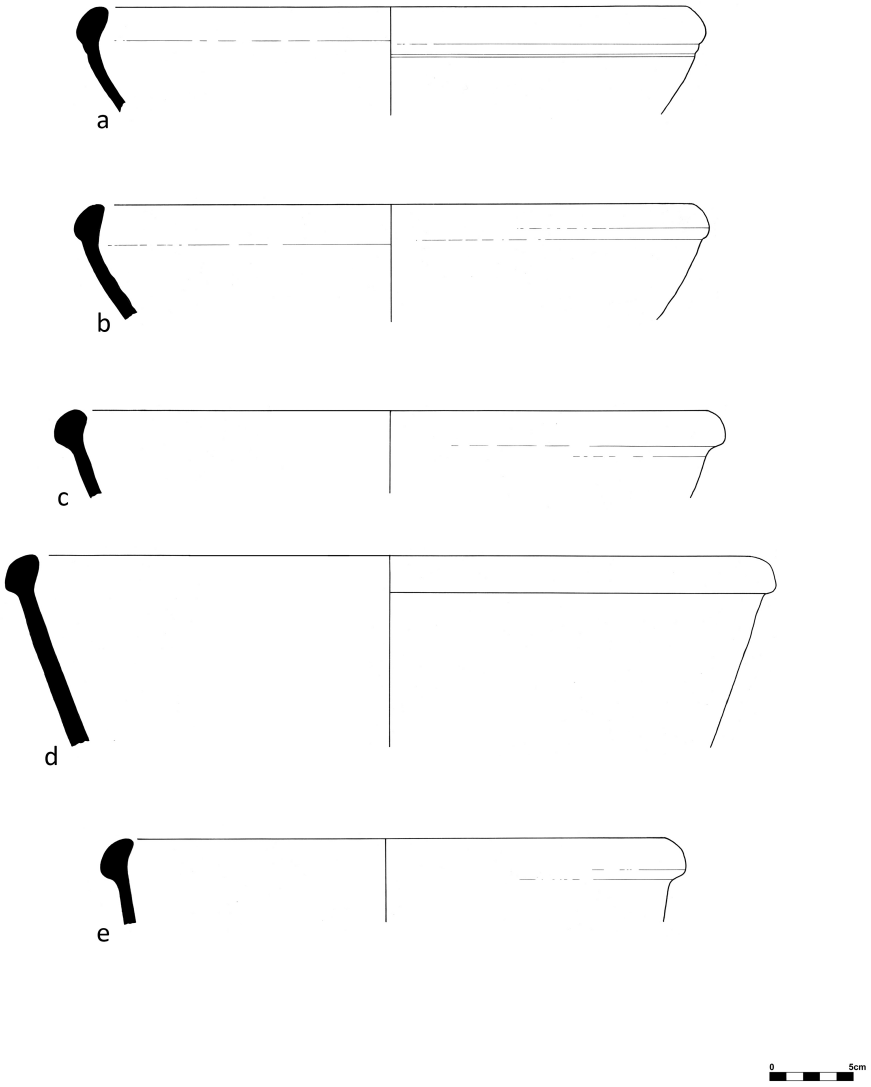


Figure 113 *a-e = HAR-OR2*

Figure 113						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR2	CREAC	Siraf		2007.6001,4776	1:4
b	HAR-OR2	CREAC	Siraf		2007.6001,4809	1:4
c	HAR-OR2	HARLIM	Siraf		2007.6001,674	1:4
d	HAR-OR2	HARLIM	Siraf		2007.6001,4868	1:4
e	HAR-OR2	REBROS	Siraf		2007.6001,669	1:4

HAR-OR3 - HARLIM, REBROS, CREAC

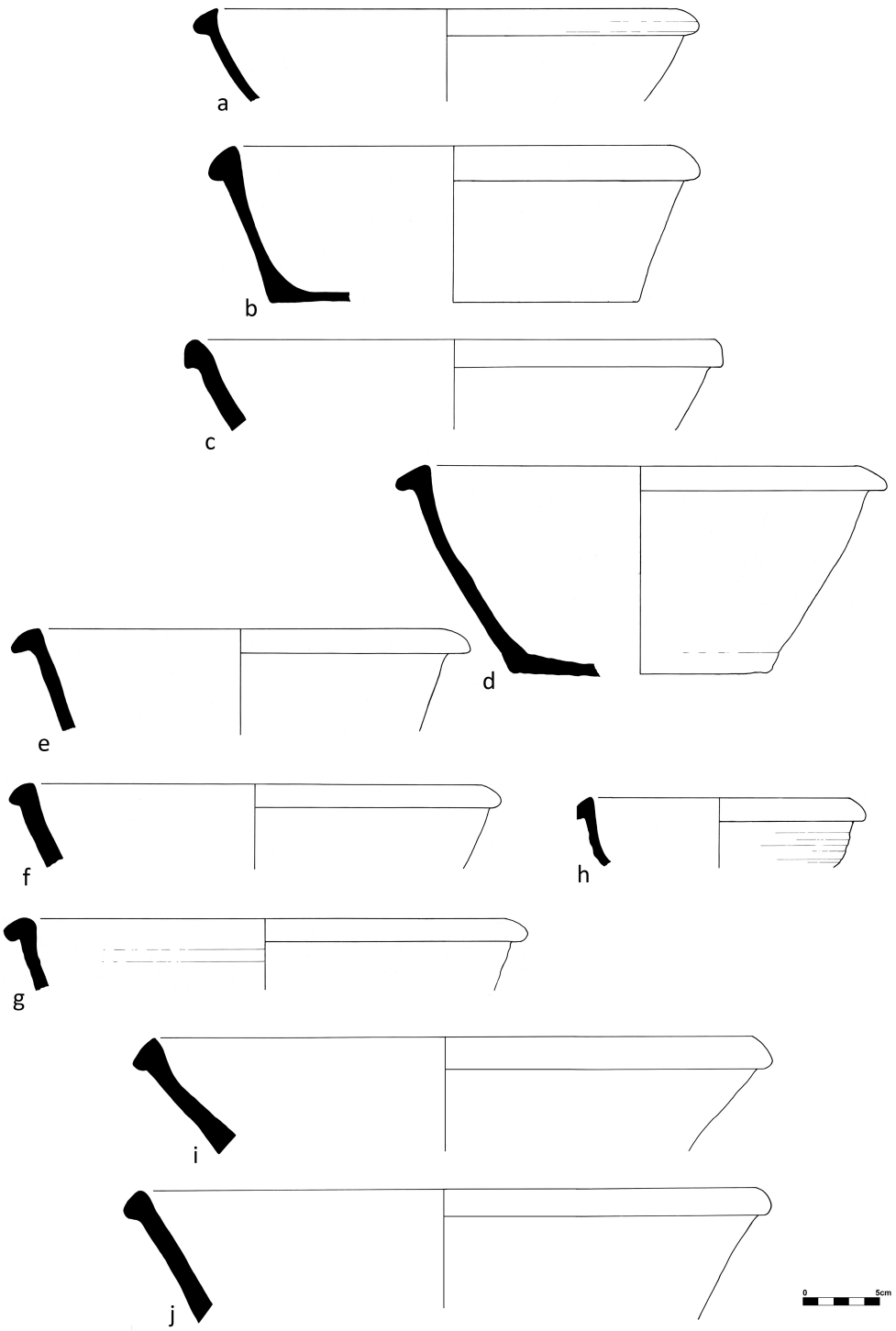
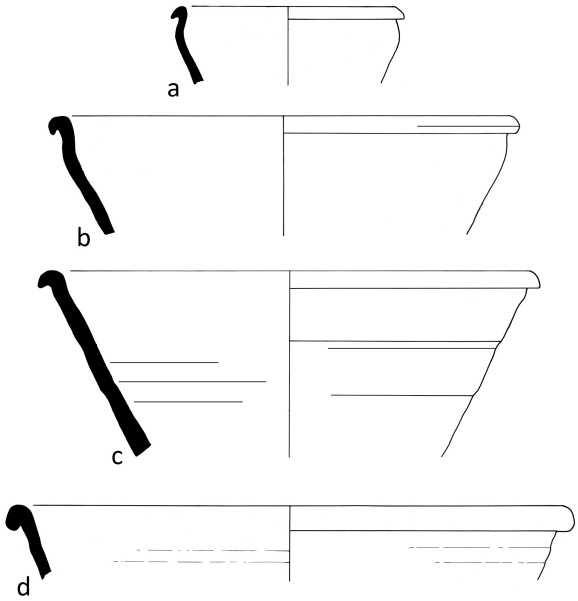


Figure 114 *a-j = HAR-OR3*

Figure 114						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR3	REBROS	Siraf		2007.6001,2940	1:4
b	HAR-OR3	REBROS	Siraf		2007.6001,6827	1:4
c	HAR-OR3	HARLIM	Williamson/ H17A		2259	1:4
d	HAR-OR3	REBROS	Siraf		2007.6001,8219	1:4
e	HAR-OR3	REBROS	Siraf		2007.6001,1813	1:4
f	HAR-OR3	HARLIM	Siraf		2007.6001,9404	1:4
g	HAR-OR3	HARLIM	Siraf		2007.6001,2943	1:4
h	HAR-OR3	REBROS	Siraf		2007.6001,8138	1:4
i	HAR-OR3	CREAC	Williamson/ H44		2269	1:4
j	HAR-OR3	HARLIM	Williamson/ H17A		2251	1:4

HAR-OR4 - HARLIM, REBROS



HAR-OR5 - HARLIM, REBROS

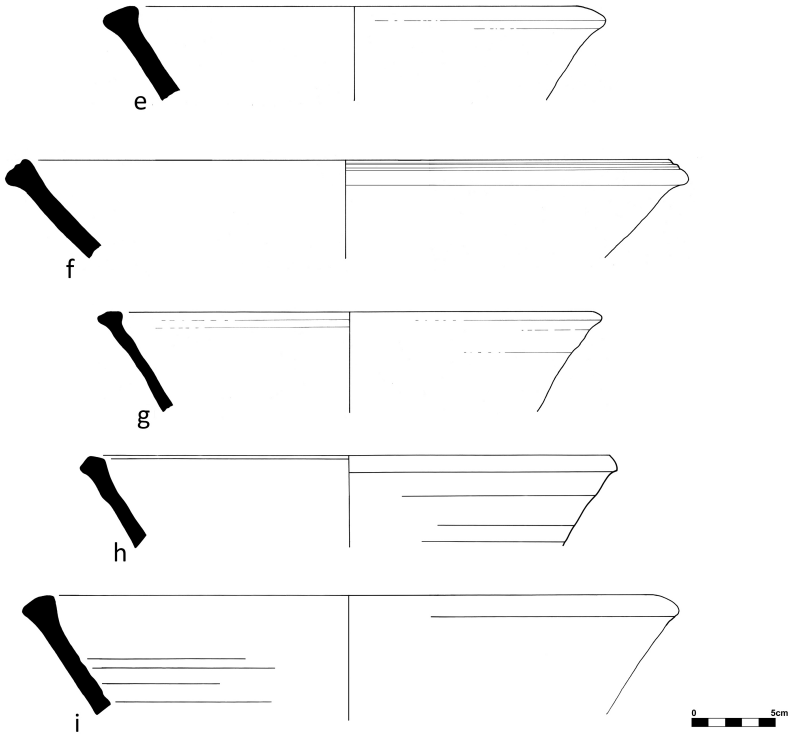
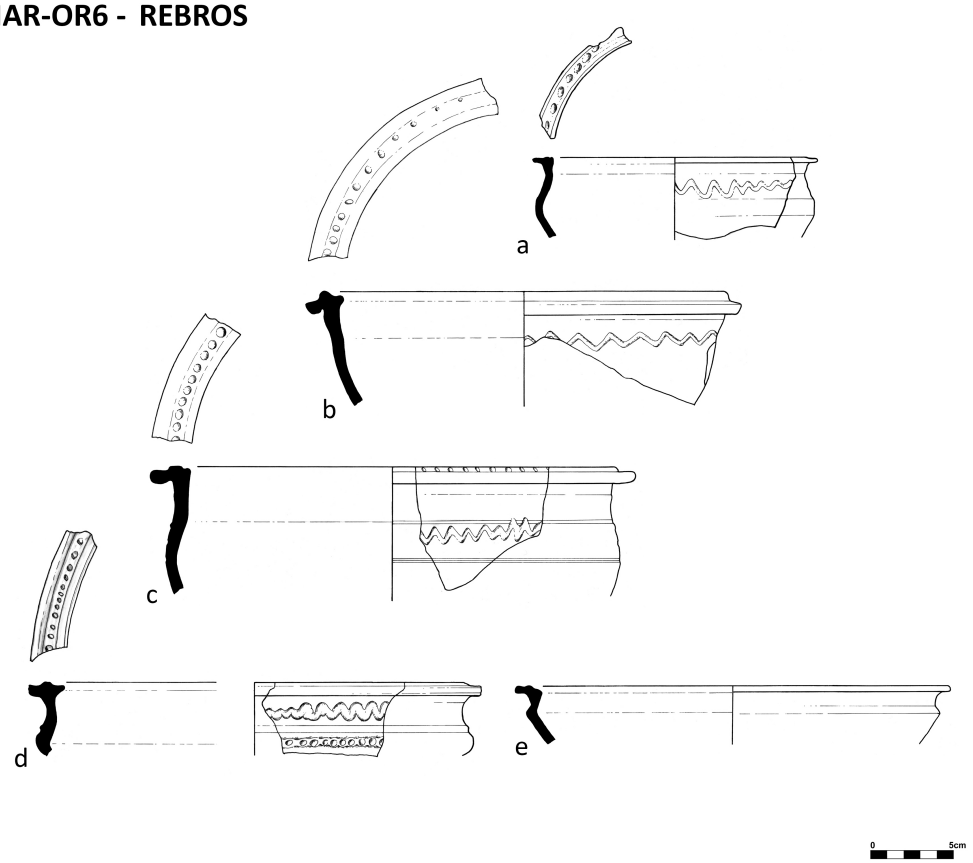


Figure 115 *a-d = HAR-OR4; e-i = HAR-OR5*

Figure 115						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR4	REBROS	Siraf		2007.6001,1089	1:4
b	HAR-OR4	HARLIM	Williamson/ D30		14477	1:4
c	HAR-OR4	HARLIM	Williamson/ K102C		12904	1:4
d	HAR-OR4	HARLIM	Siraf		2007.6001,36	1:4
e	HAR-OR5	REBROS	Siraf		2007.6001,28	1:4
f	HAR-OR5	REBROS	Siraf		2007.6001,8931	1:4
g	HAR-OR5	HARLIM	Siraf		2007.6001,9234	1:4
h	HAR-OR5	HARLIM	Williamson/ B15		15065	1:4
i	HAR-OR5	HARLIM	Williamson/ D18A		1457	1:4

HAR-OR6 - REBROS



HAR-OR7 - HARLIM, REBROS

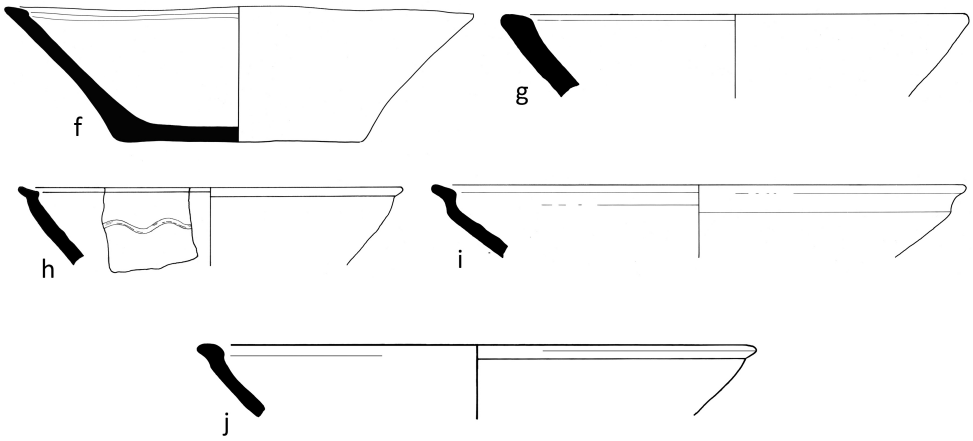


Figure 116 *a-e = HAR-OR6; f-j = HAR-OR7*

Figure 116						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR6	REBROS	Siraf		2007.6001,2953	1:4
b	HAR-OR6	REBROS	Siraf		2007.6001,7397	1:4
c	HAR-OR6	REBROS	Siraf		2007.6001,1033	1:4
d	HAR-OR6	REBROS	Siraf		2007.6001,1820	1:4
e	HAR-OR6	REBROS	Siraf		2007.6001,2956	1:4
f	HAR-OR7	REBROS	Siraf		2007.6001,2937	1:4
g	HAR-OR7	REBROS	Siraf		2007.6001,551	1:4
h	HAR-OR7	REBROS	Siraf		2007.6001,3005	1:4
i	HAR-OR7	REBROS	Siraf		2007.6001,2957	1:4
j	HAR-OR7	HARLIM	Williamson/ H61		303	1:4

HAR-OR8 - HARLIM, REBROS, CREAC

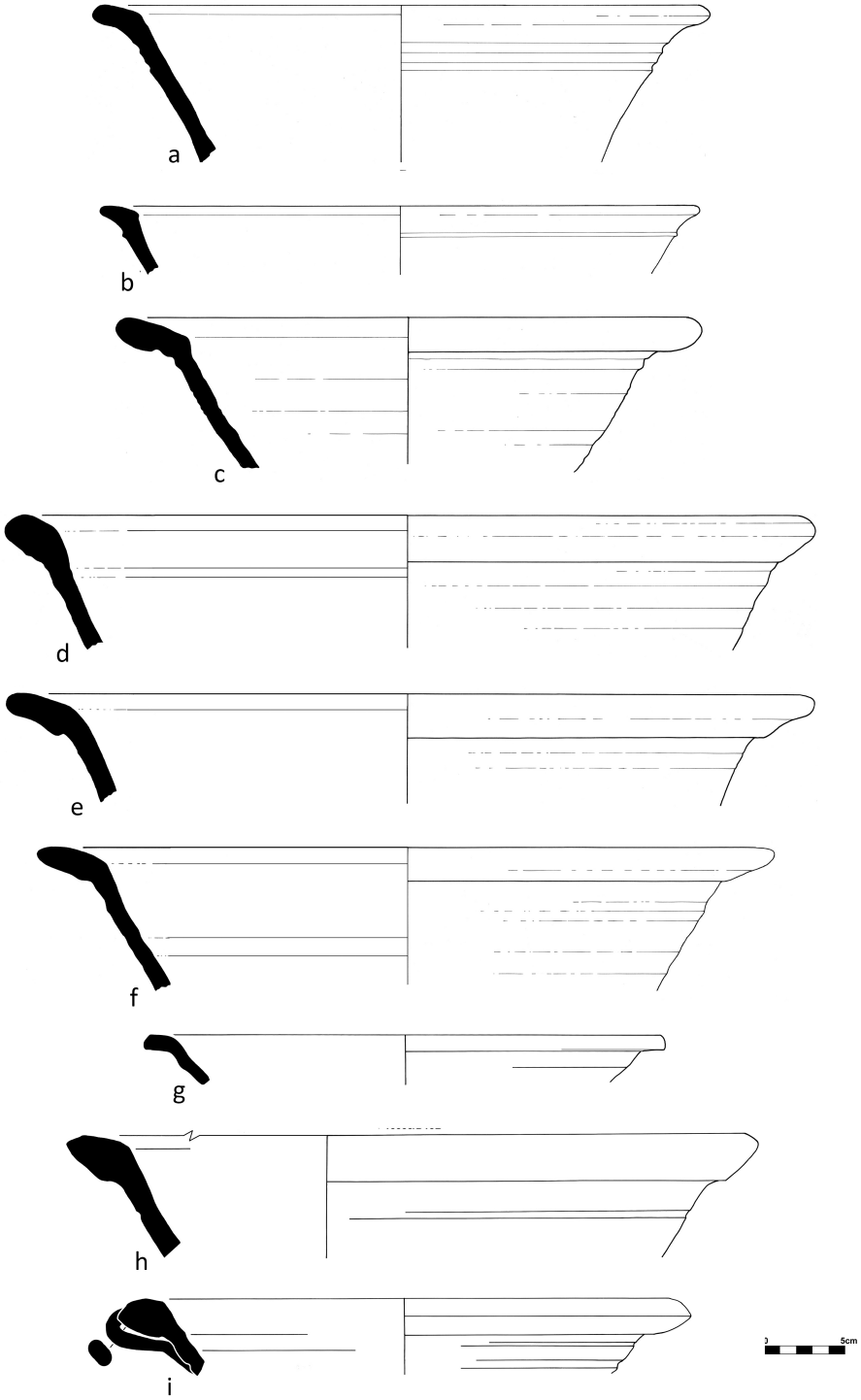


Figure 117 *a-i = HAR-OR8*

Figure 117						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR8	REBROS	Siraf		2007.6001,7008	1:4
b	HAR-OR8	REBROS	Siraf		2007.6001,366	1:4
c	HAR-OR8	HARLIM	Siraf		2007.6001,122	1:4
d	HAR-OR8	CREAC	Siraf		2007.6001,7852	1:4
e	HAR-OR8	CREAC	Siraf		2007.6001,3903	1:4
f	HAR-OR8	CREAC	Siraf		2007.6001,789	1:4
g	HAR-OR8	HARLIM	Williamson/ K102b		13179	1:4
h	HAR-OR8	CREAC	Williamson/ B10A		15010	1:4
i	HAR-OR8	CREAC	Williamson/ B10A		15028	1:4

HAR-OR8 - HARLIM, REBROS, CREAC

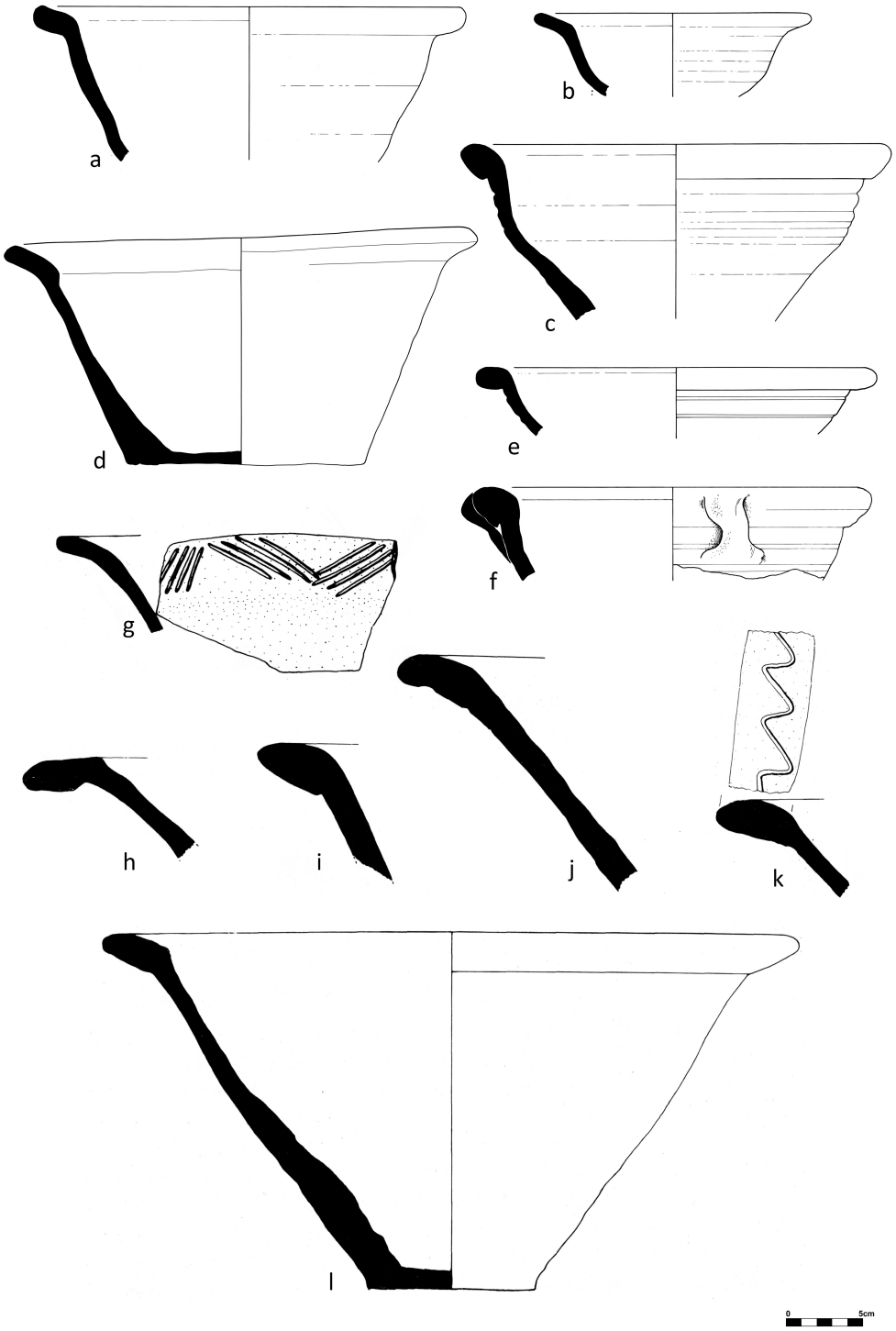


Figure 118 *a-l = HAR-OR8*

Figure 118						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR8	CREAC	Siraf		2007.6001,5241	1:4
b	HAR-OR8	CREAC	Siraf		2007.6001,3915	1:4
c	HAR-OR8	CREAC	Siraf		2007.6001,8885	1:4
d	HAR-OR8	CREAC	Siraf		2007.6001,5344	1:4
e	HAR-OR8	CREAC	Siraf		2007.6001,6901	1:4
f	HAR-OR8	CREAC	Siraf		2007.6001,7490	1:4
g	HAR-OR8	CREAC	Manda	Chittick, 1984: fig. 47: f		1:4
h	HAR-OR8	CREAC	Manda	Chittick, 1984: fig. 47: d		1:4
i	HAR-OR8	CREAC	Manda	Chittick, 1984: fig. 47: c		1:4
j	HAR-OR8	CREAC	Manda	Chittick, 1984: fig. 47: b		1:4
k	HAR-OR8	CREAC	Manda	Chittick, 1984: fig. 47: e		1:4
l	HAR-OR8	CREAC	Manda	Chittick, 1984: fig. 47: a		1:4

HAR-OR9 - HARLIM, CREAC

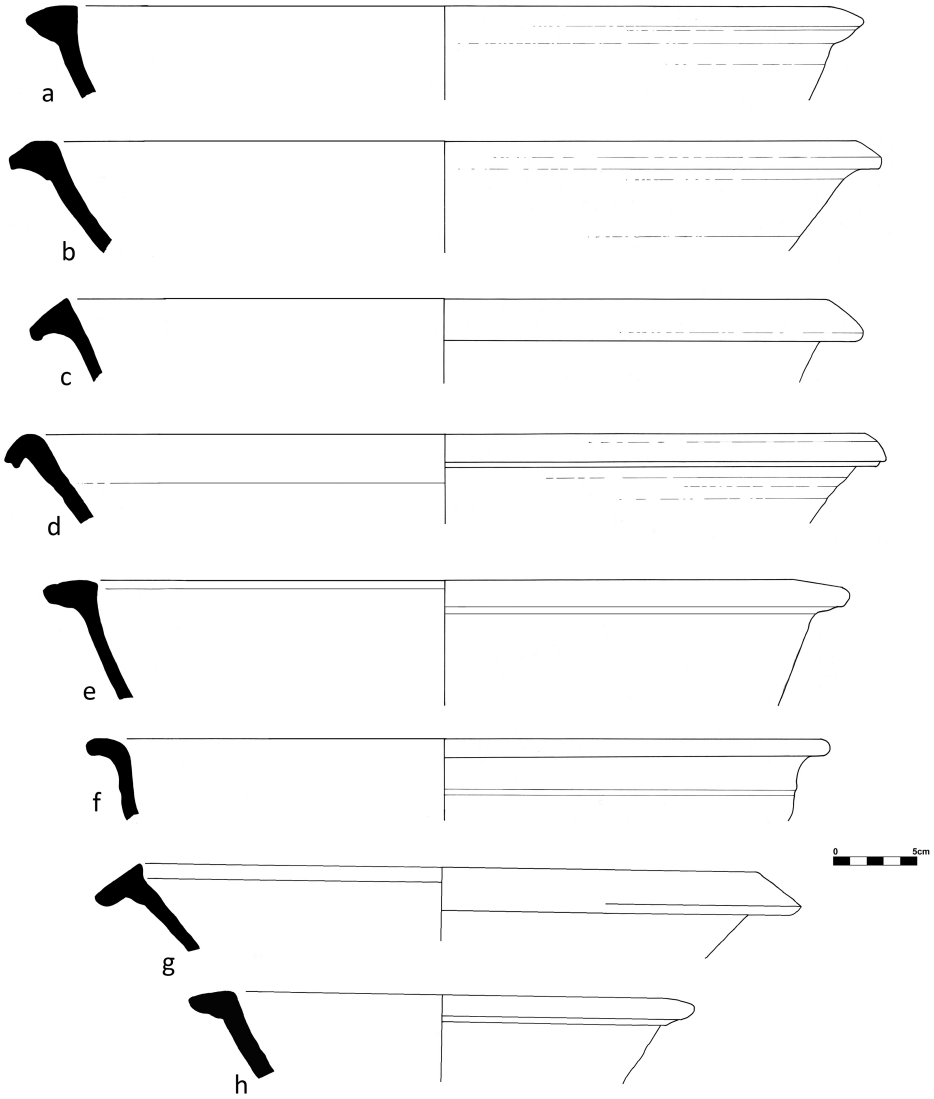
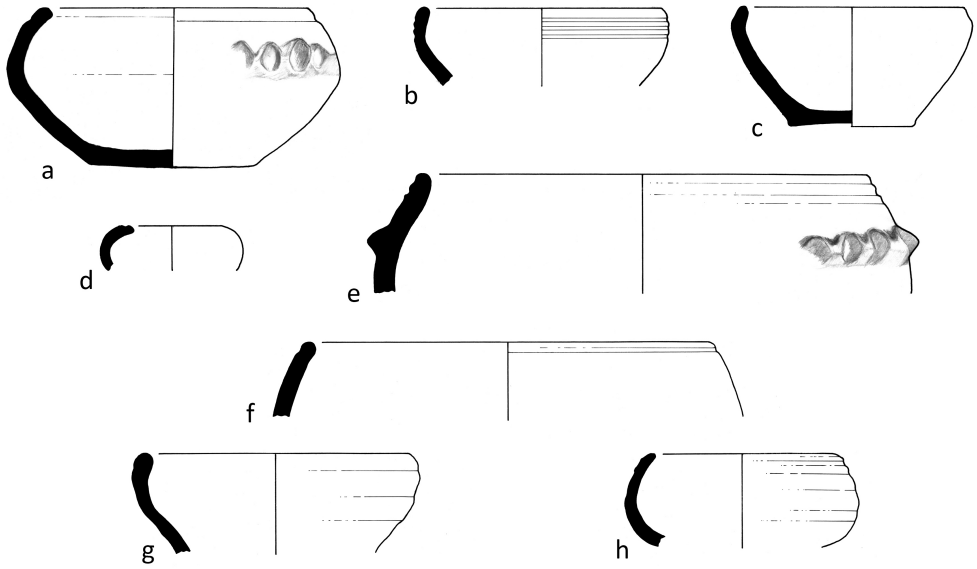


Figure 119 *a-h = HAR-OR9*

Figure 119						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR9	CREAC	Siraf		2007.6001,1218	1:4
b	HAR-OR9	CREAC	Siraf		2007.6001,7760	1:4
c	HAR-OR9	CREAC	Siraf		2007.6001,989	1:4
d	HAR-OR9	CREAC	Siraf		2007.6001,3204	1:4
e	HAR-OR9	HARLIM	Siraf		2007.6001,1755	1:4
f	HAR-OR9	HARLIM	Siraf		2007.6001,2156	1:4
g	HAR-OR9	CREAC	Williamson/ D18C		14467	1:4
h	HAR-OR9	CREAC	Williamson/ B17		15029	1:4

HAR-OR10 - HARLIM, REBROS



HAR-OR11 - REBROS

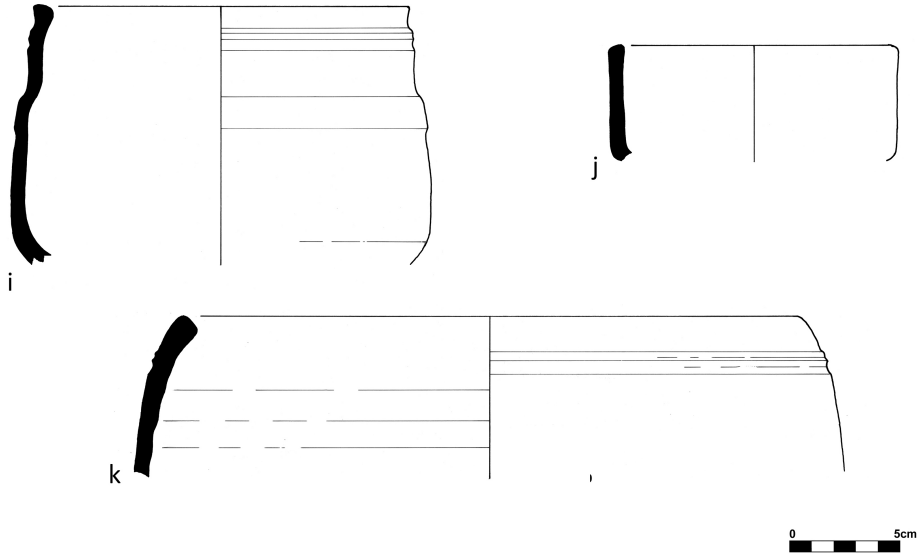
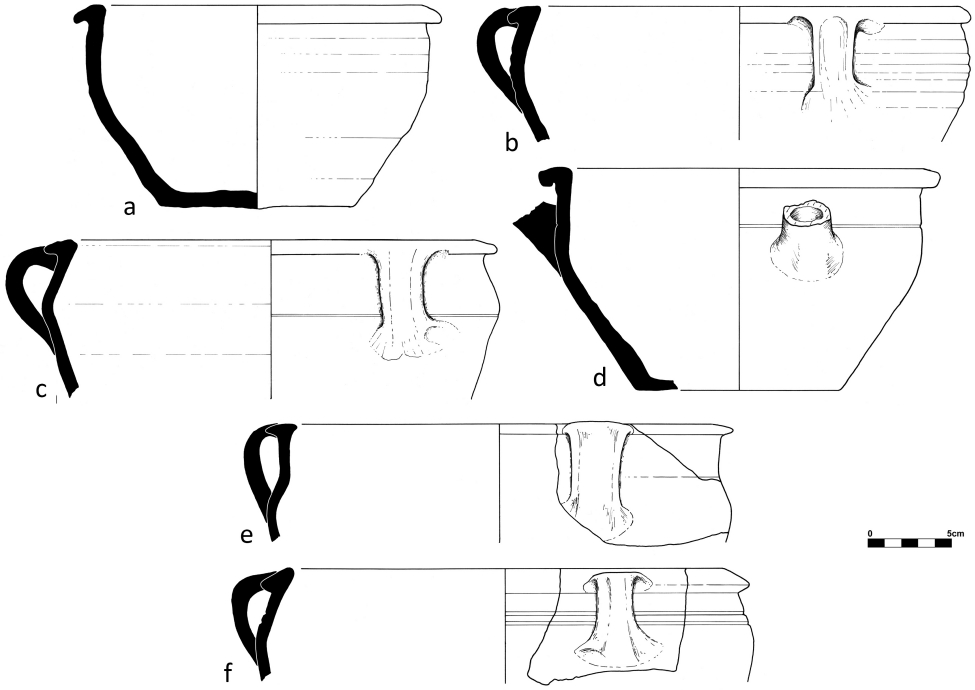


Figure 120 *a-h = HAR-OR10; i-k = HAR-OR11*

Figure 120						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR10	REBROS	Siraf		2007.6001,6979	1:3
b	HAR-OR10	REBROS	Siraf		2007.6001,5312	1:3
c	HAR-OR10	REBROS	Siraf		2007.6001,8539	1:3
d	HAR-OR10	REBROS	Siraf		2007.6001,6307	1:3
e	HAR-OR10	REBROS	Siraf		2007.6001,8226	1:3
f	HAR-OR10	HARLIM	Siraf		2007.6001,3840	1:3
g	HAR-OR10	HARLIM	Siraf		2007.6001,7131	1:3
h	HAR-OR10	HARLIM	Siraf		2007.6001,7443	1:3
i	HAR-OR11	REBROS	Siraf		2007.6001,8320	1:3
j	HAR-OR11	REBROS	Siraf		2007.6001,8099	1:3
k	HAR-OR11	REBROS	Siraf		2007.6001,2229	1:3

HAR-OR12 - REBROS, CREAC



HAR-OR13 - REBROS

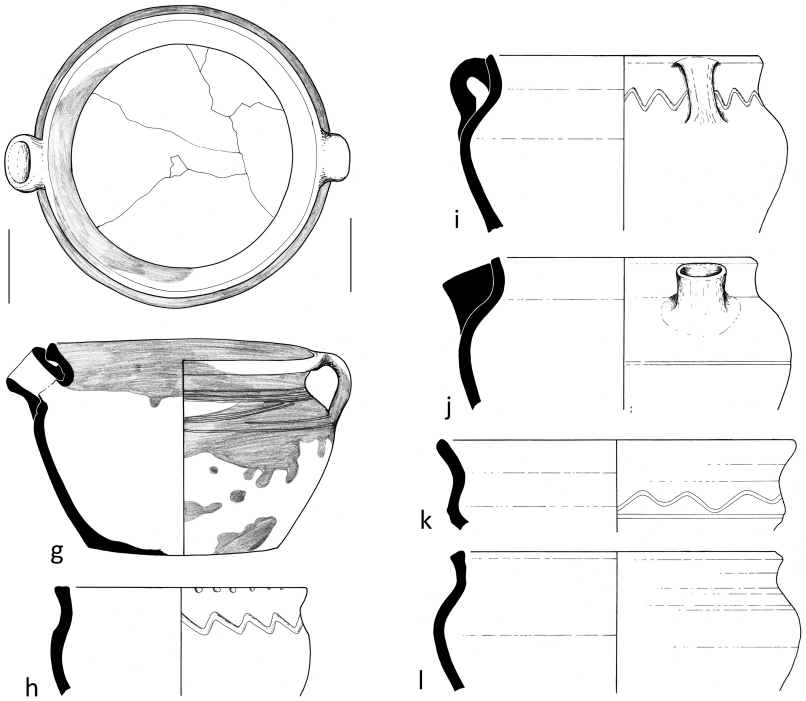
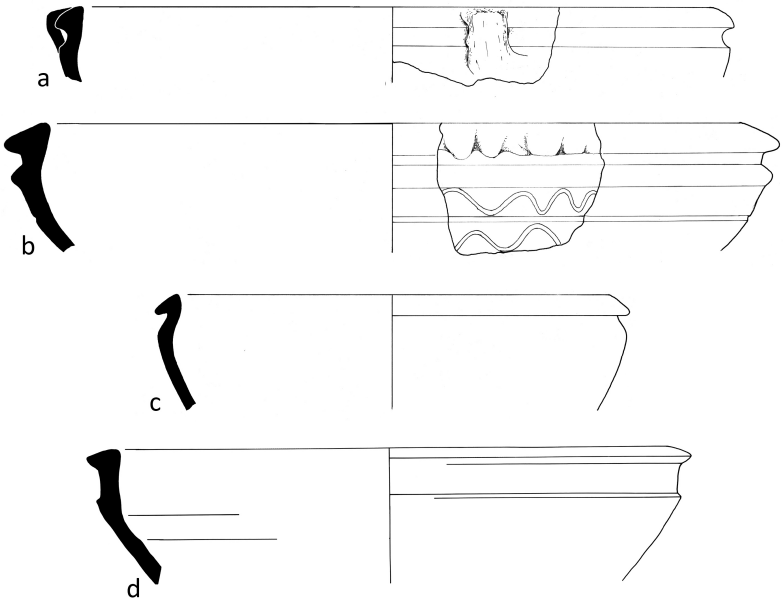


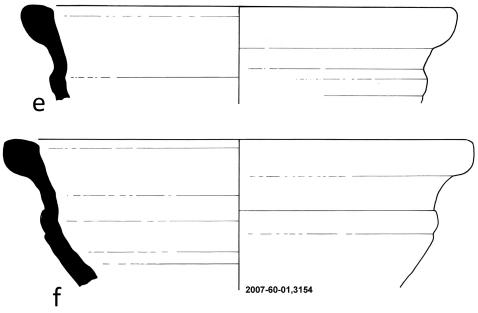
Figure 121 *a-f = HAR-OR12; g-l = HAR-OR13*

Figure 121						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR12	CREAC	Siraf		2007.6001,7619	1:4
b	HAR-OR12	CREAC	Siraf		2007.6001,1217	1:4
c	HAR-OR12	CREAC	Siraf		2007.6001,8129	1:4
d	HAR-OR12	REBROS	Siraf		2007.6001,838	1:4
e	HAR-OR12	REBROS	Siraf		2007.6001,1518	1:4
f	HAR-OR12	REBROS	Siraf		2007.6001,1335	1:4
g	HAR-OR13	REBROS	Siraf		2007.6001,2400	1:4
h	HAR-OR13	REBROS	Siraf		2007.6001,899	1:4
i	HAR-OR13	REBROS	Siraf		2007.6001,3862	1:4
j	HAR-OR13	REBROS	Siraf		2007.6001,3863	1:4
k	HAR-OR13	REBROS	Siraf		2007.6001,7596	1:4
l	HAR-OR13	REBROS	Siraf		2007.6001,8844	1:4

HAR-OR14 - HARLIM , CREAC



HAR-OR15 - CREAC



HAR-OR16 - CREAC

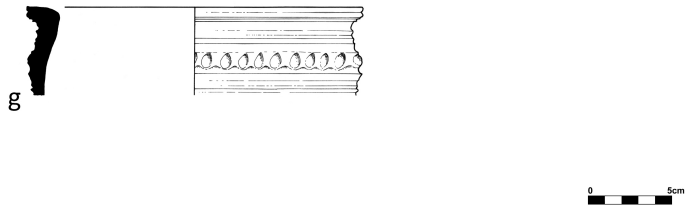


Figure 122 *a-d = HAR-OR14; e-f = HAR-OR15; g = HAR-OR16*

Figure 122						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR14	CREAC	Siraf		2007.6001,5789	1:4
b	HAR-OR14	CREAC	Siraf		2007.6001,2232	1:4
c	HAR-OR14	CREAC	Siraf		2007.6001,2709	1:4
d	HAR-OR14	HARLIM	Williamson/ D1		14646	1:4
e	HAR-OR15	CREAC	Siraf		2007.6001,8764	1:4
f	HAR-OR15	CREAC	Siraf		2007.6001,3154	1:4
g	HAR-OR16	CREAC	Siraf		2007.6001,3804	1:4

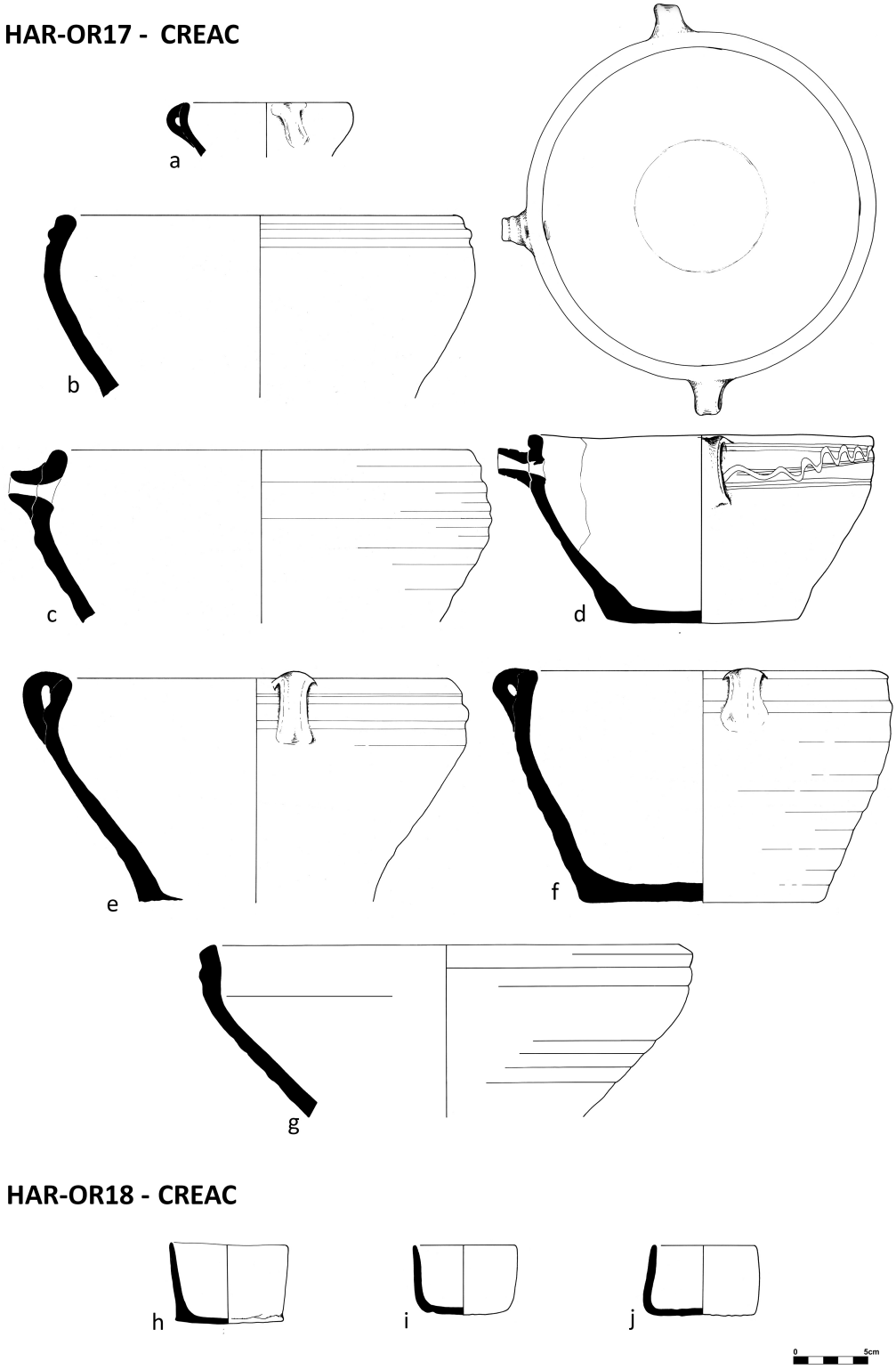


Figure 123 *a-g = HAR-OR17; h-j = HAR-OR18*

Figure 123						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR17	CREAC	Siraf		2007.6001,8528	1:3
b	HAR-OR17	CREAC	Siraf		2007.6001,6835	1:3
c	HAR-OR17	CREAC	Siraf		2007.6001,7048	1:3
d	HAR-OR17	CREAC	Siraf		2007.6001,5363	1:3
e	HAR-OR17	CREAC	Siraf		2007.6001,6373	1:3
f	HAR-OR17	CREAC	Siraf		2007.6001,7413	1:3
g	HAR-OR17	CREAC	Williamson/ B10C		15024	1:3
h	HAR-OR18	CREAC	Siraf		2007.6001,5347	1:3
i	HAR-OR18	CREAC	Siraf		2007.6001,5458	1:3
j	HAR-OR18	CREAC	Siraf		2007.6001,9542	1:3

HAR-OR19 - CREAC

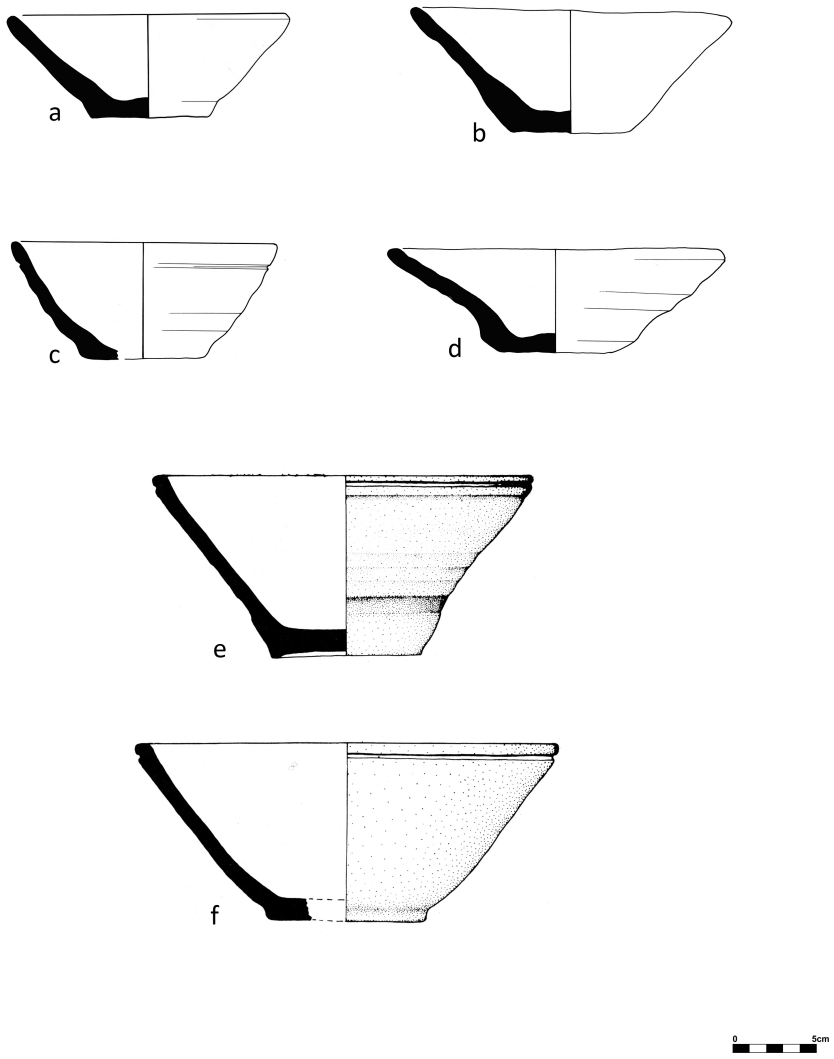


Figure 124 *a-f = HAR-OR19*

Figure 124						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR19	CREAC	Siraf		2007.6001,2976	1:4
b	HAR-OR19	CREAC	Siraf		2007.6001,5376	1:4
c	HAR-OR19	CREAC	Siraf		2007.6001,7606	1:4
d	HAR-OR19	CREAC	Siraf		2007.6001,5248	1:4
e	HAR-OR19	CREAC	Manda	Chittick, 1984: 48: a		1:4
f	HAR-OR19	CREAC	Manda	Chittick, 1984: 48: b		1:4

HAR-OR20 - CREAC

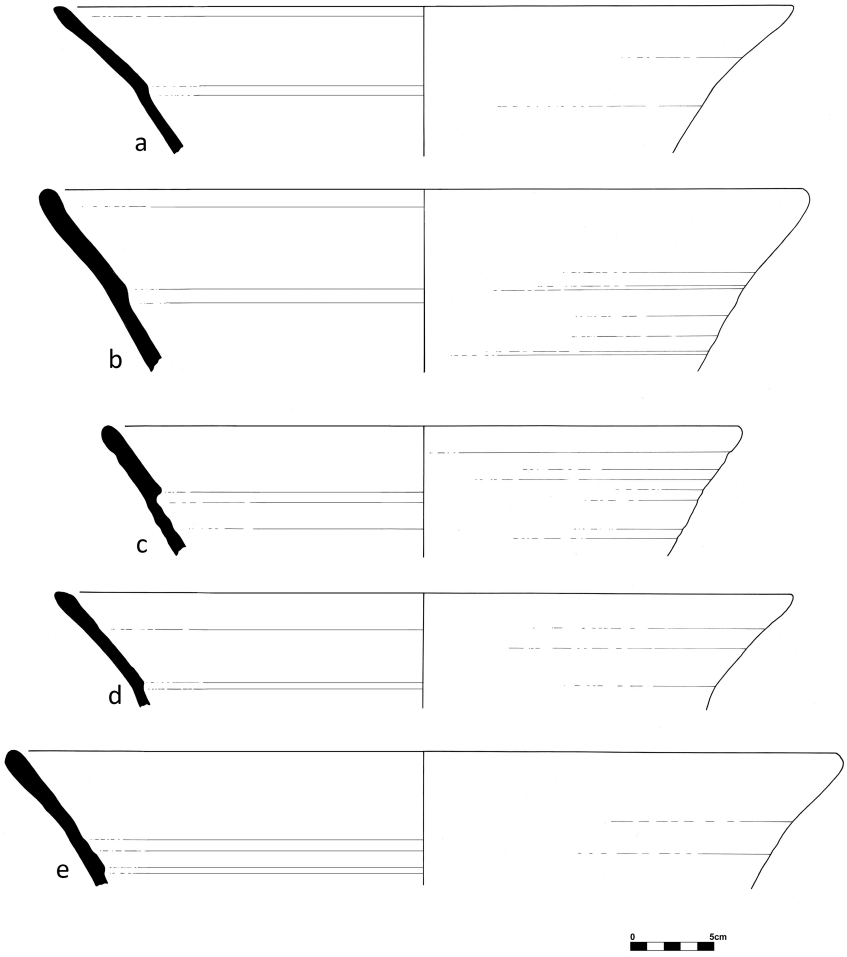


Figure 125 *a-e = HAR-OR20*

Figure 125						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR20	CREAC	Siraf		2007.6001,2017	1:4
b	HAR-OR20	CREAC	Siraf		2007.6001,2075	1:4
c	HAR-OR20	CREAC	Siraf		2007.6001,2425	1:4
d	HAR-OR20	CREAC	Siraf		2007.6001,2022	1:4
e	HAR-OR20	CREAC	Siraf		2007.6001,1721	1:4

HAR-OR21 - CREAC

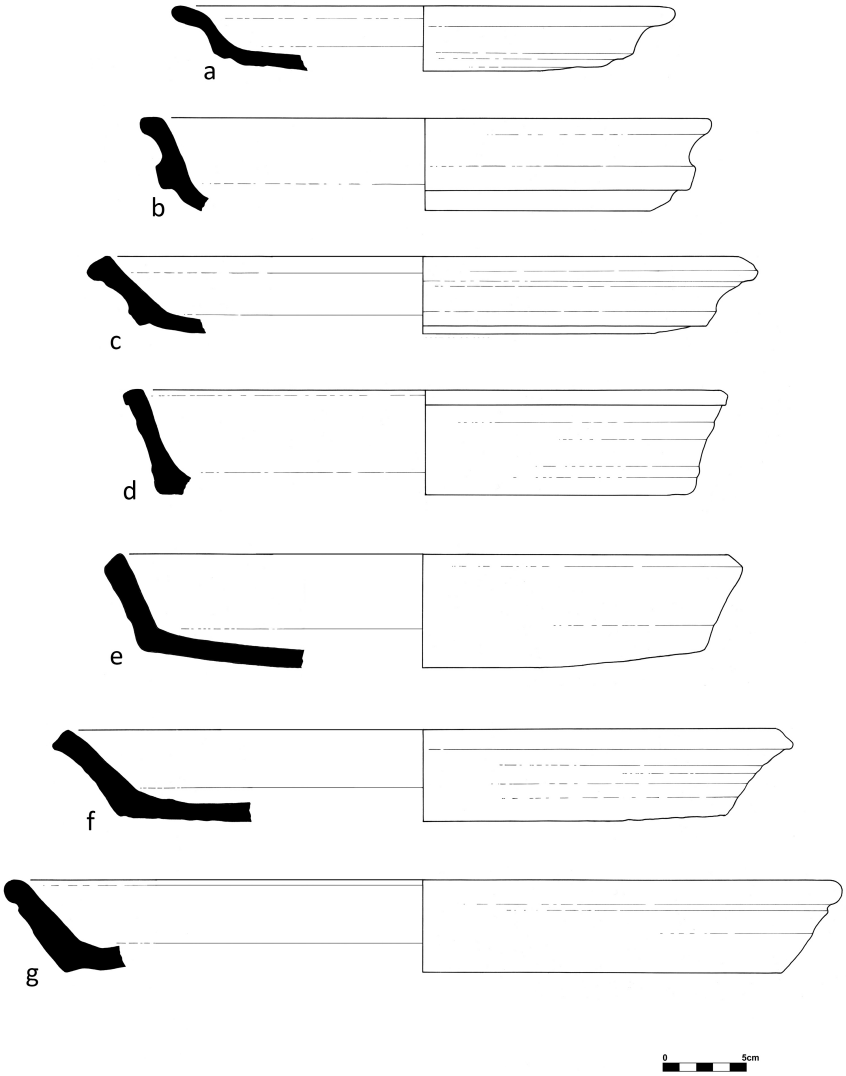


Figure 126 *a-g = HAR-OR21*

Figure 126						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR21	CREAC	Siraf		2007.6001,2231	1:4
b	HAR-OR21	CREAC	Siraf		2007.6001,428	1:4
c	HAR-OR21	CREAC	Siraf		2007.6001,1998	1:4
d	HAR-OR21	CREAC	Siraf		2007.6001,437	1:4
e	HAR-OR21	CREAC	Siraf		2007.6001,7409	1:4
f	HAR-OR21	CREAC	Siraf		2007.6001,518	1:4
g	HAR-OR21	CREAC	Siraf		2007.6001,7208	1:4

HAR-OR22 - HARLIM

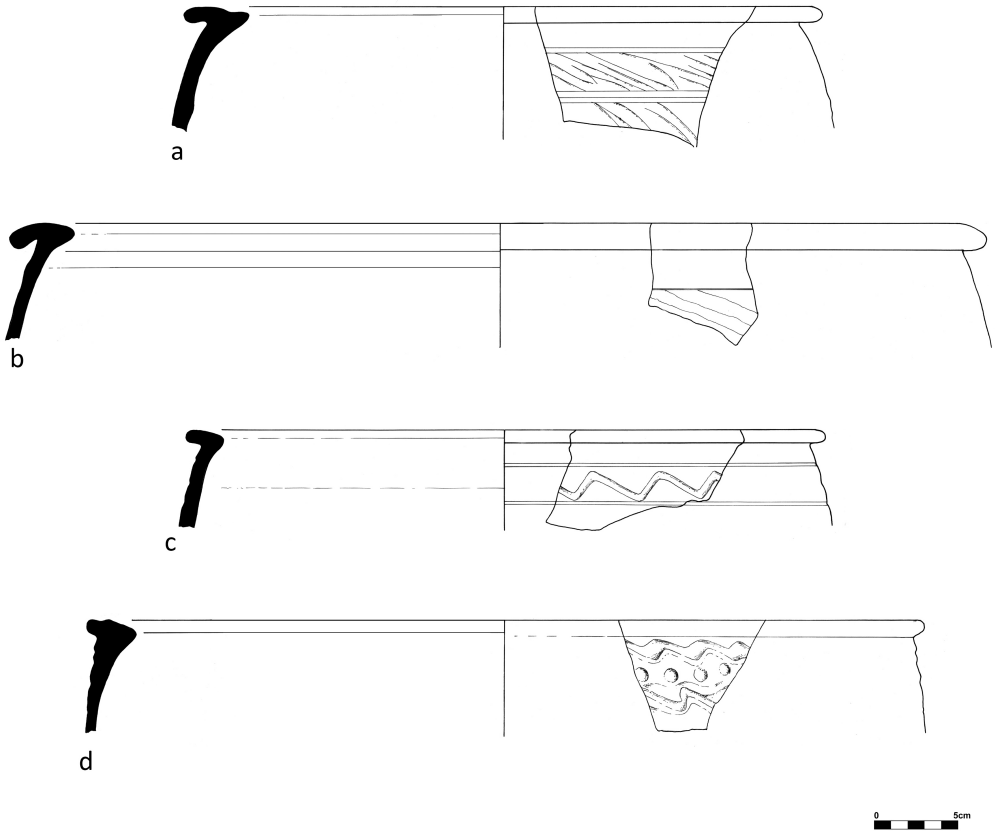
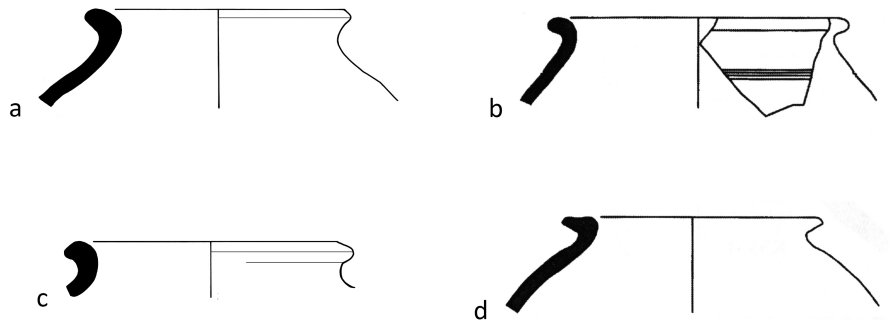


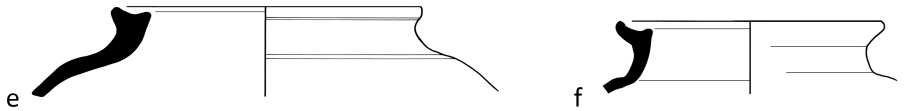
Figure 127 *a-d = HAR-OR22*

Figure 127						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-OR22	HARLIM	Siraf		2007.6001,986	1:4
b	HAR-OR22	HARLIM	Siraf		2007.6001,1427	1:4
c	HAR-OR22	HARLIM	Siraf		2007.6001,1816	1:4
d	HAR-OR22	HARLIM	Siraf		2007.6001,1829	1:4

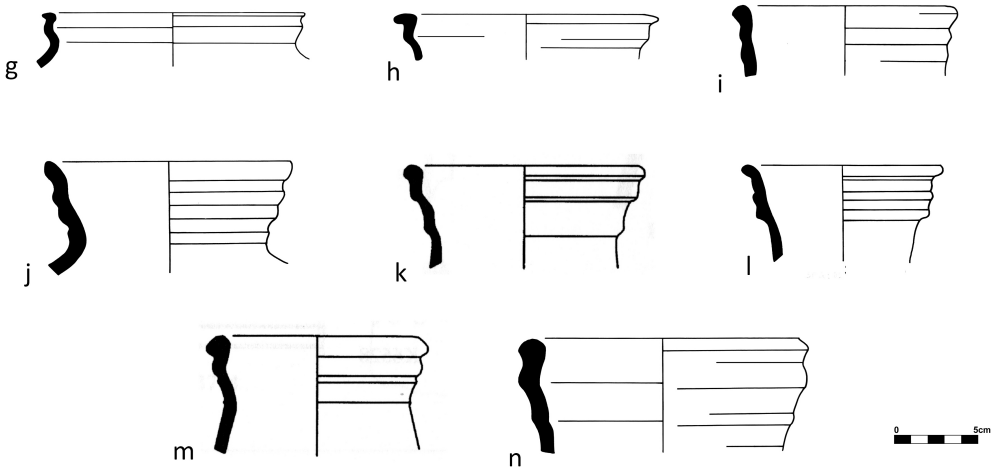
HAR-CR1 - CLINKY



HAR-CR2 - CLINKY



HAR-CR3 - HARLIM



HAR-CR4 - HARLIM

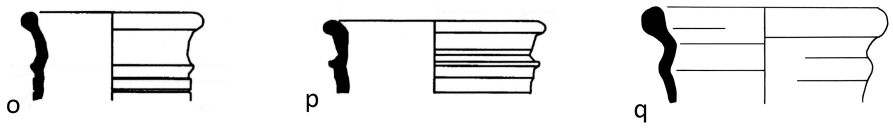


Figure 128 *a-d = HAR-CR1 (Type 81); e-f = HAR-CR2; g-n = HAR-CR3 (Type 75); o-q = HAR-CR4 (Type 76)*

Figure 128						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-CR1	CLINKY	Williamson/ H18A		1950	1:3
b	HAR-CR1	CLINKY	Kush	Kennet, 2004: fig. 35	K4813	1:3
c	HAR-CR1	CLINKY	Williamson/ K109		3595	1:3
d	HAR-CR1	CLINKY	Kush	Kennet, 2004: fig. 35	K4811	1:3
e	HAR-CR2	CLINKY	Williamson/ H13		2491	1:3
f	HAR-CR2	CLINKY	Williamson/ H		2008	1:3
g	HAR-CR3	HARLIM	Williamson/ H74		1980	1:3
h	HAR-CR3	HARLIM	Williamson/ H44		2741	1:3
i	HAR-CR3	HARLIM	Williamson/ B15		15086	1:3
j	HAR-CR3	HARLIM	Williamson/ AE2		293	1:3
k	HAR-CR3	HARLIM	Kush	Kennet, 2004: fig. 37	K3631	1:3
l	HAR-CR3	HARLIM	Williamson/ K65		3513	1:3
m	HAR-CR3	HARLIM	Kush	Kennet, 2004: fig. 37	K3629	1:3
n	HAR-CR3	HARLIM	Williamson/ D14C		1458	1:3
o	HAR-CR4	HARLIM	Kush	Kennet, 2004: fig. 37	K3617	1:3
p	HAR-CR4	HARLIM	Kush	Kennet, 2004: fig. 37	K3677	1:3
q	HAR-CR4	HARLIM	Williamson/ B15		1511	1:3

HAR-CR5 - HARLIM, REBROS, CREAC

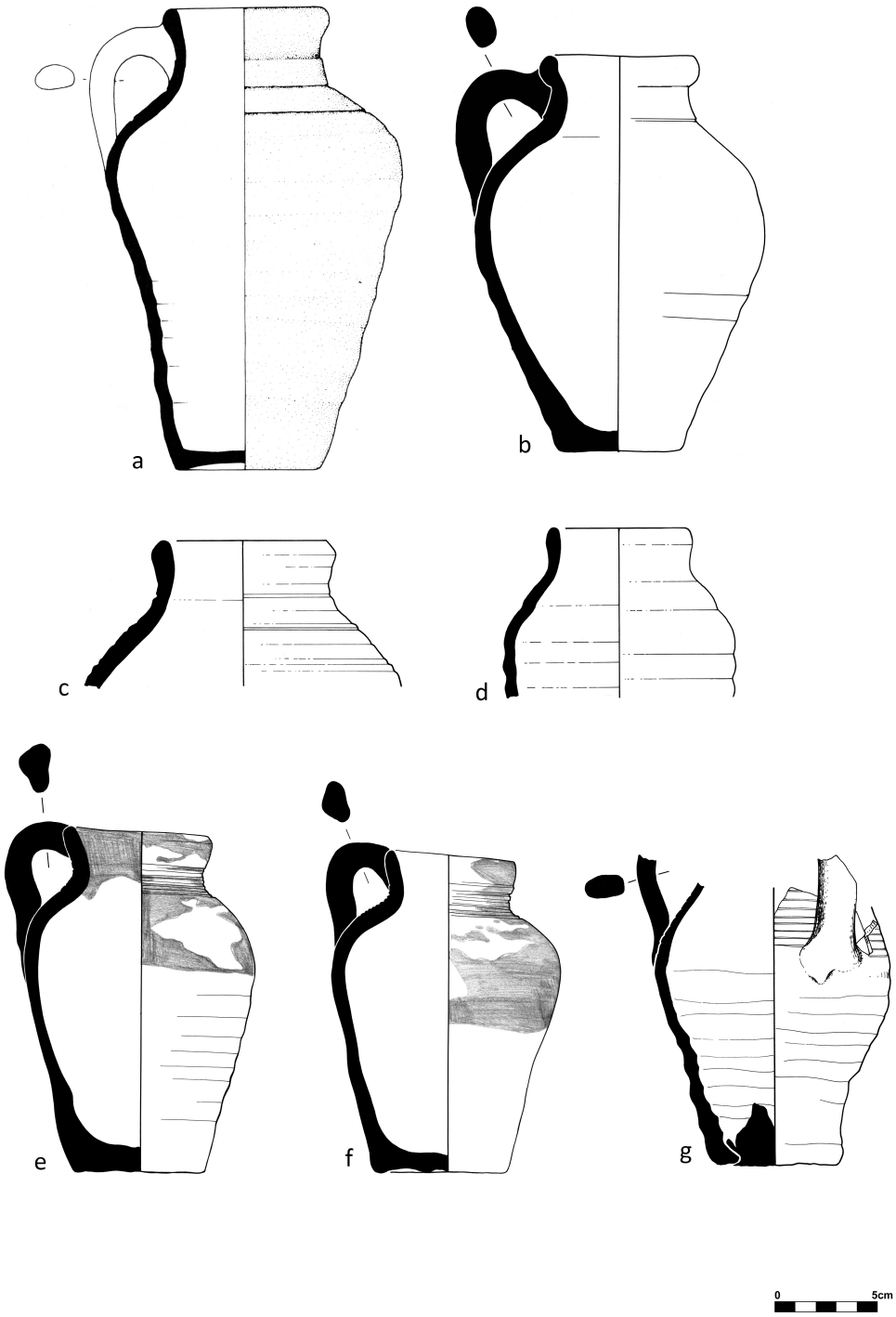
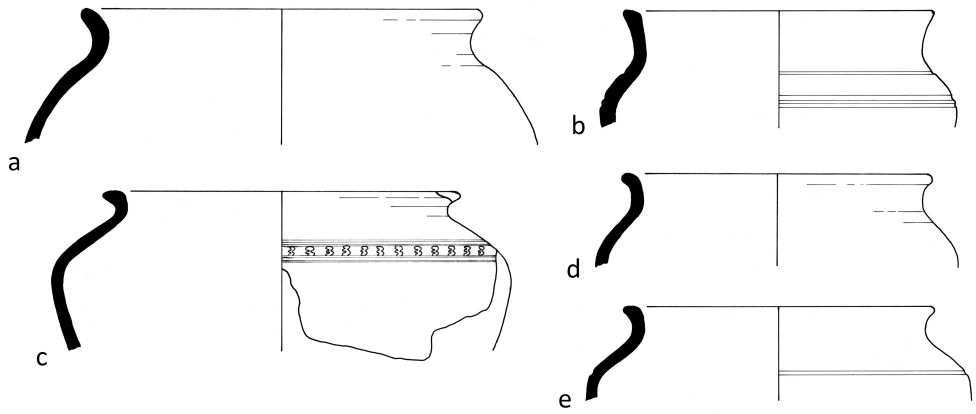


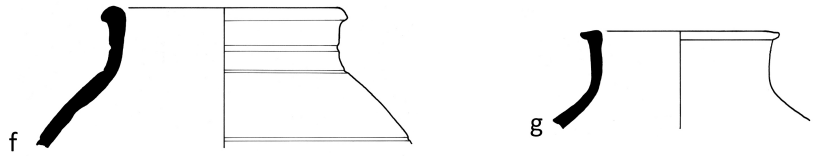
Figure 129 *a-g = HAR-CR5*

Figure 129						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-CR5	REBROS	Manda	Chittick, 1984: 46: a		1:3
b	HAR-CR5	HARLIM	Siraf		2007.6001,7802	1:3
c	HAR-CR5	HARLIM	Siraf		2007.6001,6749	1:3
d	HAR-CR5	CREAC	Siraf		2007.6001,7010	1:3
e	HAR-CR5	REBROS	Siraf		2007.6001,5345	1:3
f	HAR-CR5	REBROS	Siraf		2007.6001,5346	1:3
g	HAR-CR5	REBROS	Siraf		2007.6001,5037	1:3

HAR-CR6 - REBROS



HAR-CR7 - REBROS



HAR-CR8 - REBROS

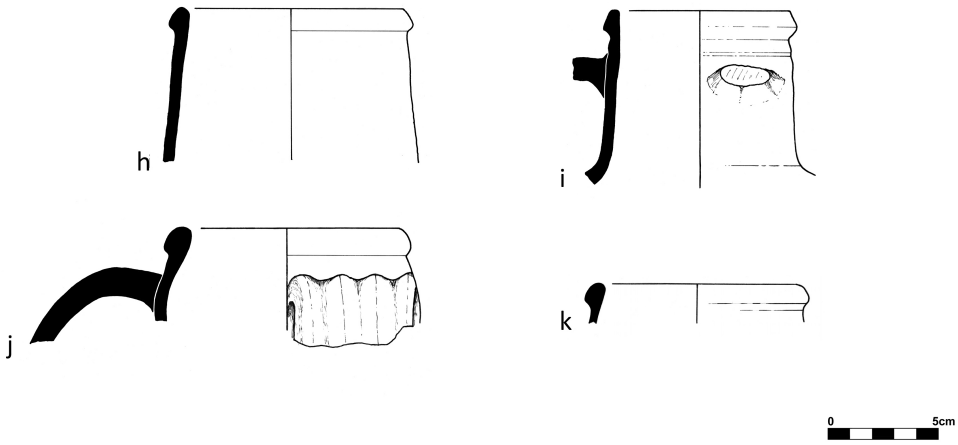
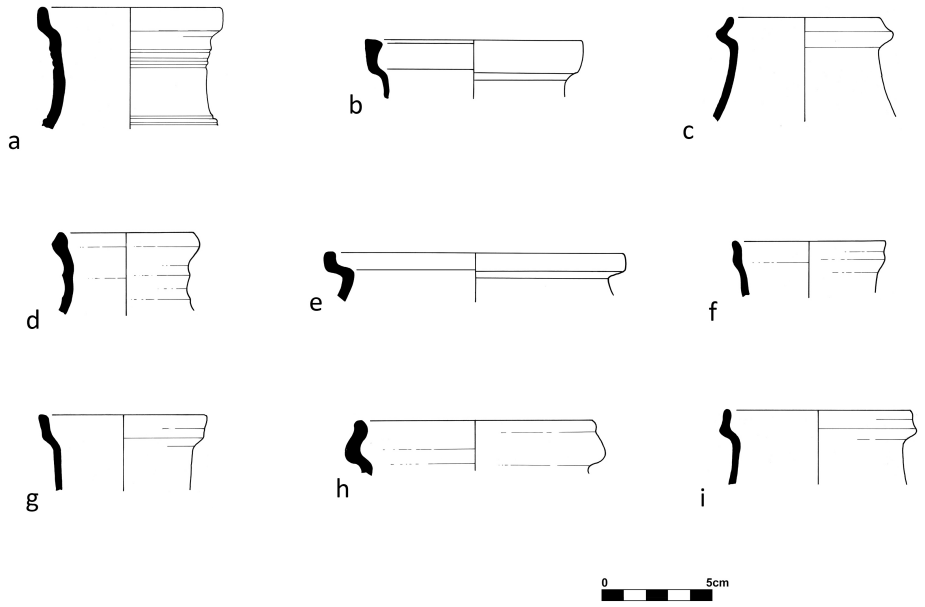


Figure 130 *a-e = HAR-CR6; f-g = HAR-CR7; h-k = HAR-CR8*

Figure 130						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-CR6	REBROS	Siraf		2007.6001,7012	1:3
b	HAR-CR6	REBROS	Siraf		2007.6001,6057	1:3
c	HAR-CR6	REBROS	Siraf		2007.6001,7756	1:3
d	HAR-CR6	REBROS	Siraf		2007.6001,6920	1:3
e	HAR-CR6	REBROS	Siraf		2007.6001,7993	1:3
f	HAR-CR7	REBROS	Siraf		2007.6001,7602	1:3
g	HAR-CR7	REBROS	Siraf		2007.6001,6311	1:3
h	HAR-CR7	REBROS	Siraf		2007.6001,6639	1:3
i	HAR-CR8	REBROS	Siraf		2007.6001,4319	1:3
j	HAR-CR8	REBROS	Siraf		2007.6001,2164	1:3
k	HAR-CR8	REBROS	Siraf		2007.6001,694	1:3

HAR-CR9 - HARLIM, REBROS



HAR-CR10 - HARLIM, REBROS

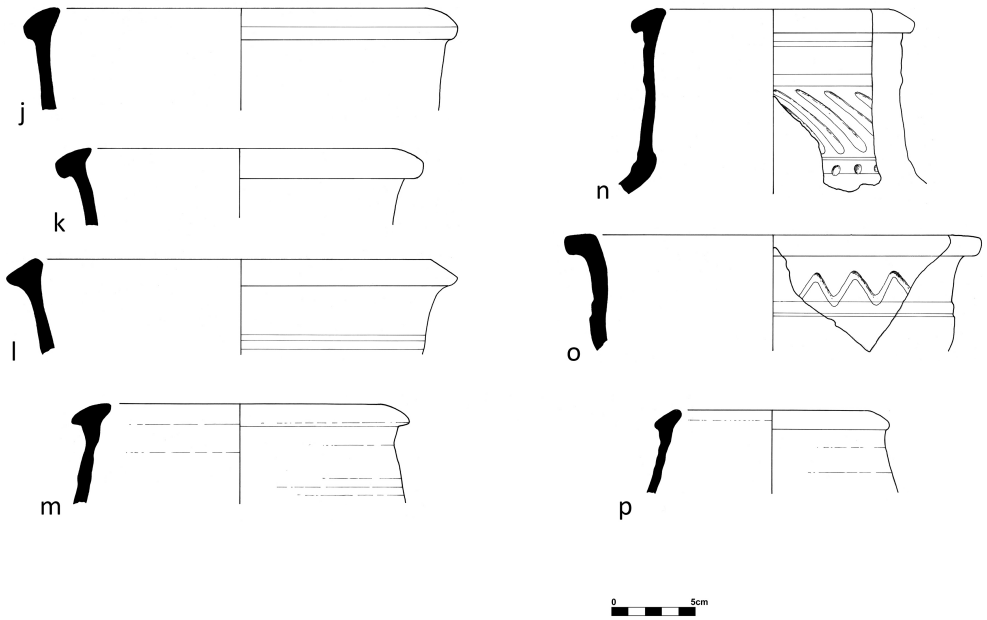


Figure 131 *a-i = HAR-CR9; j-p = HAR-CR10*

Figure 131						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-CR9	REBROS	Siraf		2007.6001,3010	1:3
b	HAR-CR9	HARLIM	Williamson/ H94		14338	1:3
c	HAR-CR9	REBROS	Siraf		2007.6001,1802	1:3
d	HAR-CR9	HARLIM	Siraf		2007.6001,6768	1:3
e	HAR-CR9	HARLIM	Williamson/ D19		14402	1:3
f	HAR-CR9	HARLIM	Siraf		2007.6001,3329	1:3
g	HAR-CR9	REBROS	Siraf		2007.6001,1486	1:3
h	HAR-CR9	HARLIM	Siraf		2007.6001,8896	1:3
i	HAR-CR9	REBROS	Siraf		2007.6001,2951	1:3
j	HAR-CR10	REBROS	Siraf		2007.6001,976	1:4
k	HAR-CR10	REBROS	Siraf		2007.6001,1025	1:4
l	HAR-CR10	REBROS	Siraf		2007.6001,2952	1:4
m	HAR-CR10	HARLIM	Siraf		2007.6001,2944	1:4
n	HAR-CR10	REBROS	Siraf		2007.6001,3263	1:4
o	HAR-CR10	REBROS	Siraf		2007.6001,3674	1:4
p	HAR-CR10	HARLIM	Siraf		2007.6001,3325	1:4

HAR-CR11 - HARLIM, REBROS

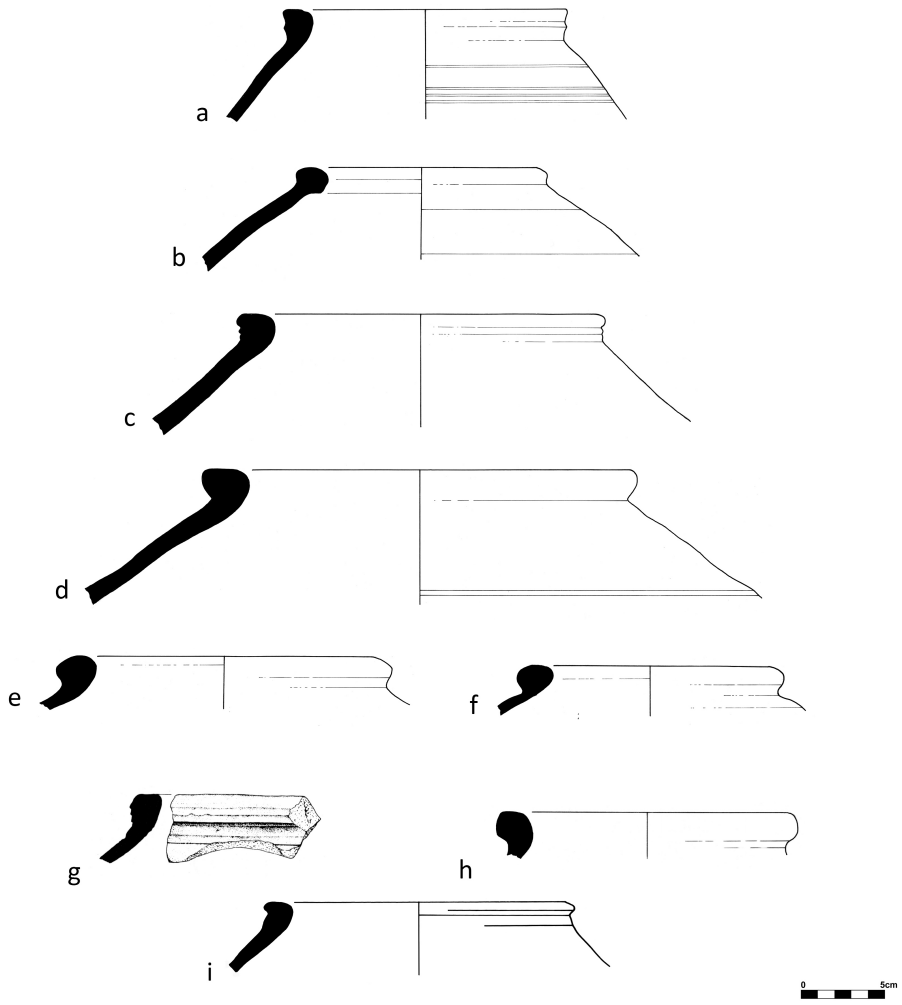


Figure 132 *a-i = HAR-CR11*

Figure 132						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-CR11	REBROS	Siraf		2007.6001,7043	1:4
b	HAR-CR11	REBROS	Siraf		2007.6001,4438	1:4
c	HAR-CR11	REBROS	Siraf		2007.6001,6344	1:4
d	HAR-CR11	REBROS	Siraf		2007.6001,6652	1:4
e	HAR-CR11	HARLIM	Siraf		2007.6001,8761	1:4
f	HAR-CR11	HARLIM	Siraf		2007.6001,7722	1:4
g	HAR-CR11	HARLIM	Manda	Chittick, 1984: 53: c		1:4
h	HAR-CR11	HARLIM	Unguja Ukuu		UU14/1432	1:4
i	HAR-CR11	HARLIM	Williamson/ V9D		9531	1:4

HAR-CR12 - REBROS, CREAC

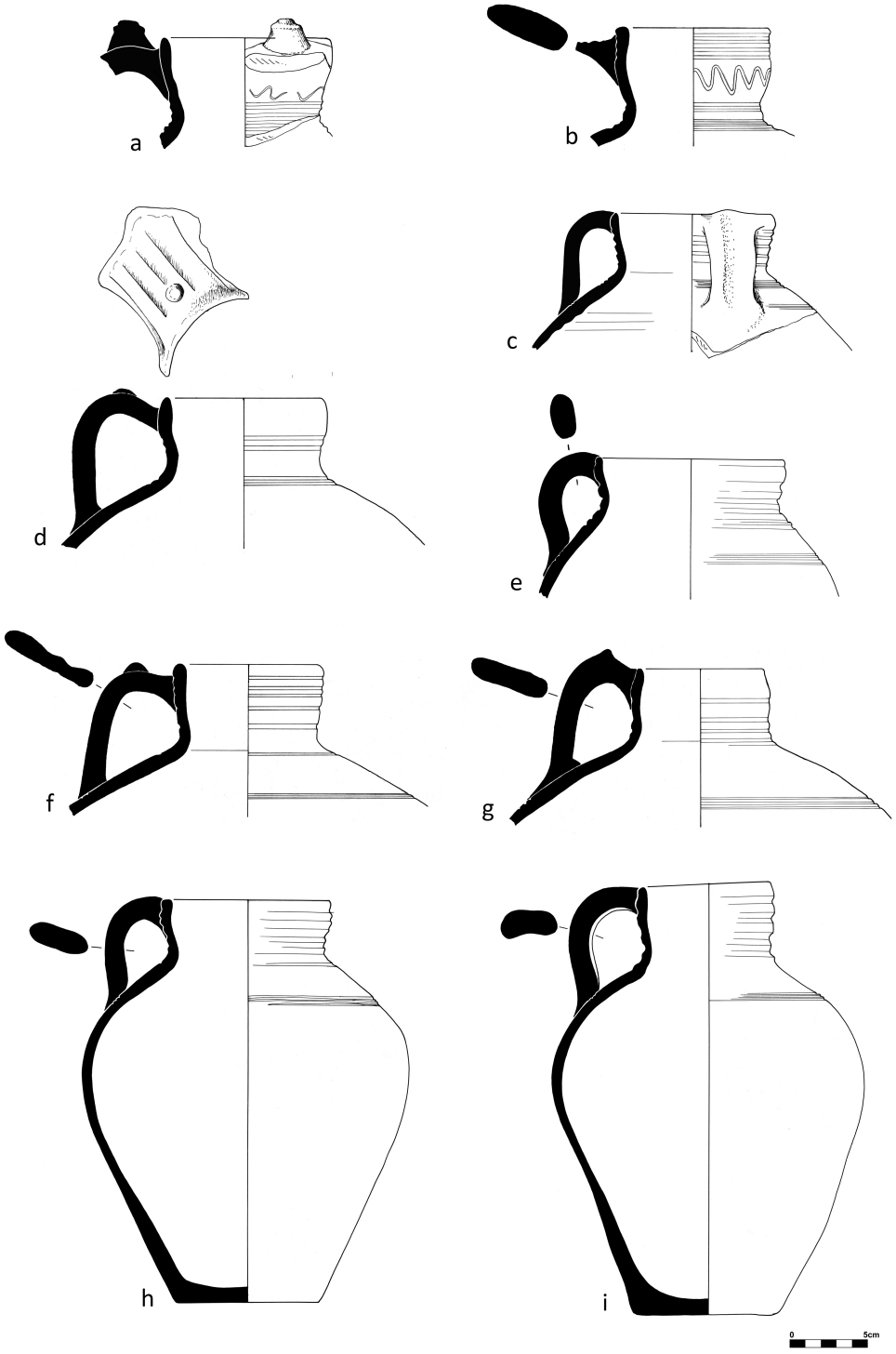


Figure 133 *a-i = HAR-CR12*

Figure 133						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-CR12	CREAC	Siraf		2007.6001,7613	1:4
b	HAR-CR12	REBROS	Siraf		2007.6001,5062	1:4
c	HAR-CR12	CREAC	Siraf		2007.6001,2399	1:4
d	HAR-CR12	REBROS	Siraf		2007.6001,7232	1:4
e	HAR-CR12	CREAC	Siraf		2007.6001,6882	1:4
f	HAR-CR12	REBROS	Siraf		2007.6001,6783	1:4
g	HAR-CR12	REBROS	Siraf		2007.6001,7630	1:4
h	HAR-CR12	CREAC	Siraf		2007.6001,7670	1:4
i	HAR-CR12	CREAC	Siraf		2007.6001,2547	1:4

HAR-CR12 - REBROS, CREAC

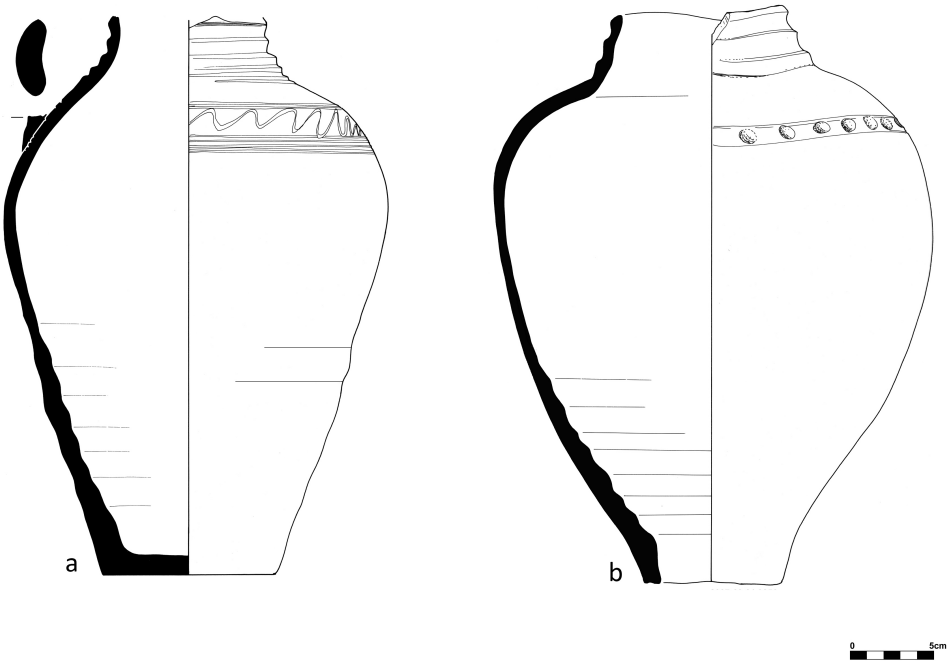


Figure 134 *a-b = HAR-CR12*

Figure 134						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-CR12	CREAC	Siraf		2007.6001,4943	1:4
b	HAR-CR12	CREAC	Siraf		2007.6001,9856	1:4

HAR-CR13 - CREAC

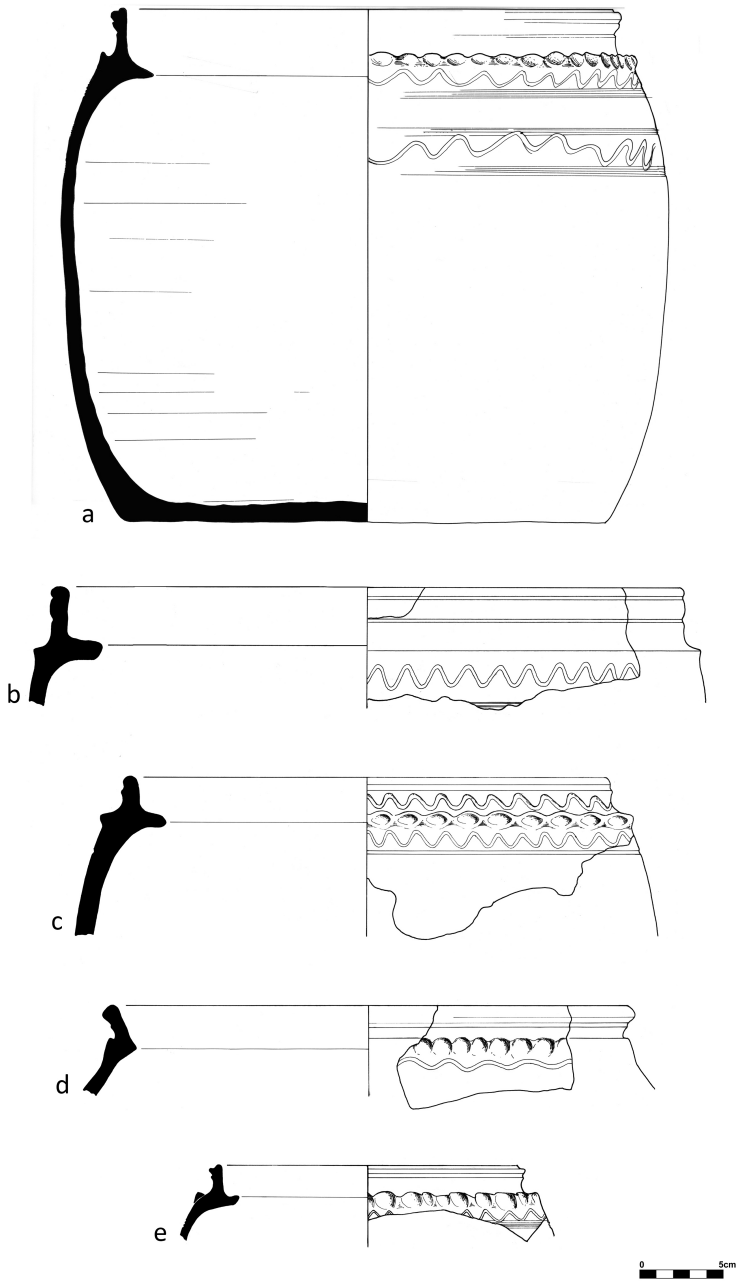
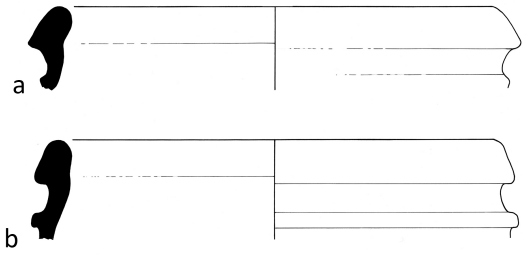


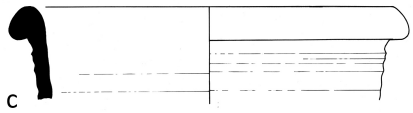
Figure 135 *a-e = HAR-CR13*

Figure 135						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-CR13	CREAC	Siraf		2007.6001,9857	1:4
b	HAR-CR13	CREAC	Siraf		2007.6001,7217	1:4
c	HAR-CR13	CREAC	Siraf		2007.6001,2234	1:4
d	HAR-CR13	CREAC	Siraf		2007.6001,5783	1:4
e	HAR-CR13	CREAC	Siraf		2007.6001,3057	1:4

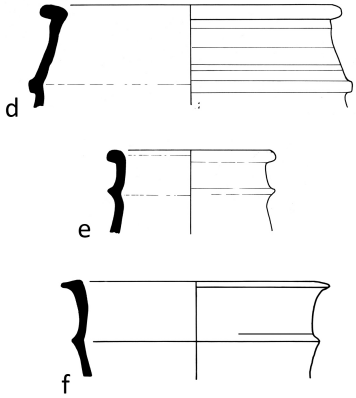
HAR-CR14 - HARLIM



HAR-CR15 - HARLIM



HAR-CR16 - HARLIM



HAR-CR17 - HARLIM

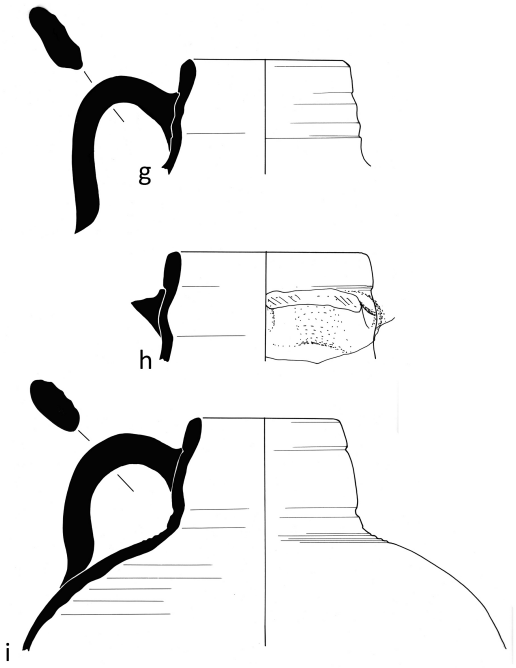


Figure 136 *a-b = HAR-CR14; c = HAR-CR15; d-f = HAR-CR16; g-i = HAR-CR17*

Figure 136						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-CR14	HARLIM	Siraf		2007.6001,33	1:4
b	HAR-CR14	HARLIM	Siraf		2007.6001,35	1:4
c	HAR-CR15	HARLIM	Siraf		2007.6001,2941	1:4
d	HAR-CR16	HARLIM	Siraf		2007.6001,2321	1:4
e	HAR-CR16	HARLIM	Siraf		2007.6001,26	1:4
f	HAR-CR16	HARLIM	Williamson/ K20B		14416	1:4
g	HAR-CR17	HARLIM	Siraf		2007.6001,4233	1:4
h	HAR-CR17	HARLIM	Siraf		2007.6001,6254	1:4
i	HAR-CR17	HARLIM	Siraf		2007.6001,7503	1:4

HAR-LISV1 - HARLIM, REBROS, CREAC, SPORC

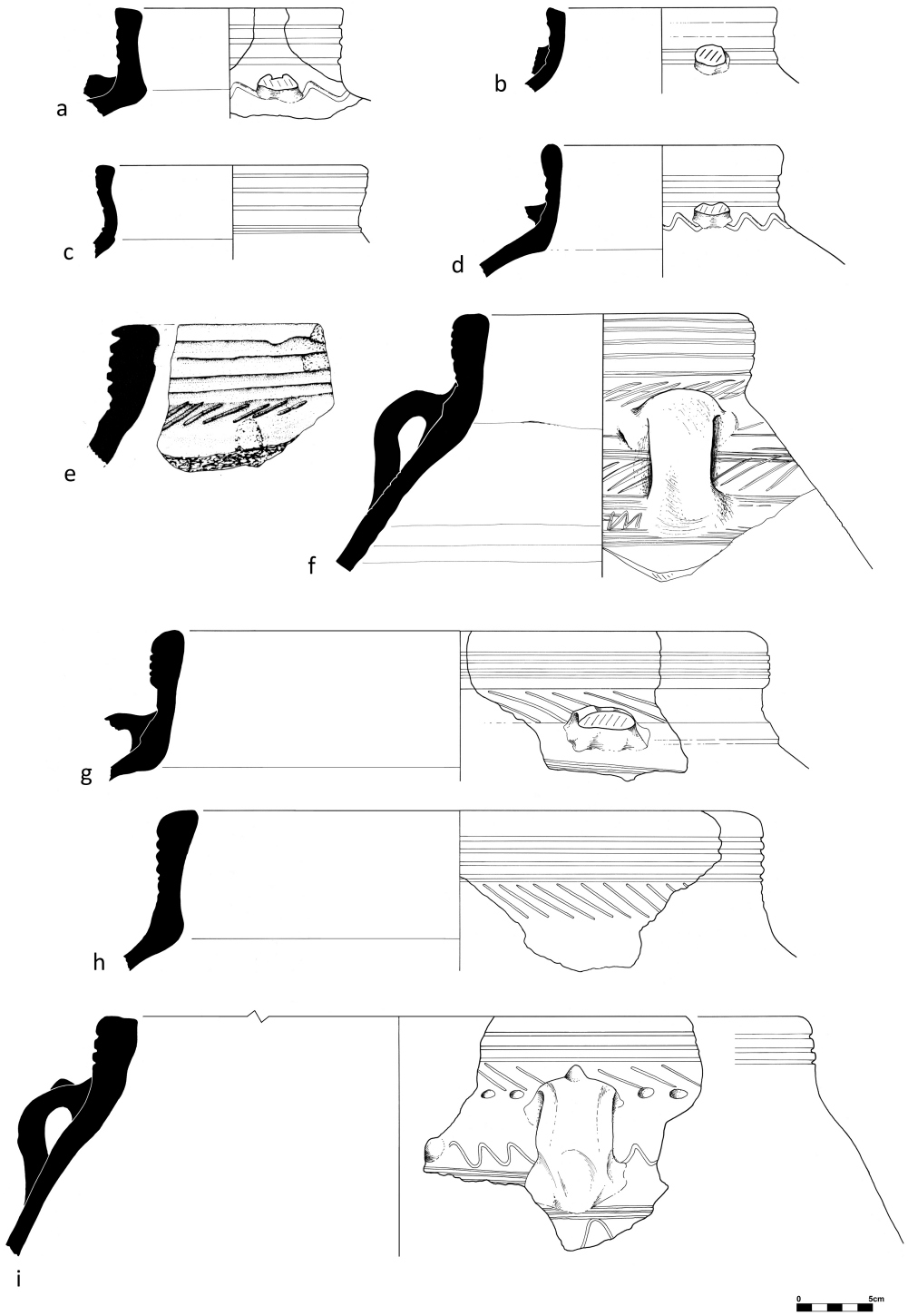


Figure 137 *a-i = HAR-LISV1*

Figure 137						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-LISV1	CREAC	Siraf		2007.6001,3821	1:4
b	HAR-LISV1	CREAC	Siraf		2007.6001,5905	1:4
c	HAR-LISV1	CREAC	Siraf		2007.6001,4620	1:4
d	HAR-LISV1	CREAC	Siraf		2007.6001,3763	1:4
e	HAR-LISV1	REBROS	Manda	Chittick, 1984: 40: e		1:4
f	HAR-LISV1	REBROS	Siraf		2007.6001,640	1:4
g	HAR-LISV1	REBROS	Siraf		2007.6001,2434	1:4
h	HAR-LISV1	REBROS	Siraf		2007.6001,1461	1:4
i	HAR-LISV1	REBROS	Siraf		2007.6001,8935	1:4

HAR-LISV1 - HARLIM, REBROS, CREAC, SPORC

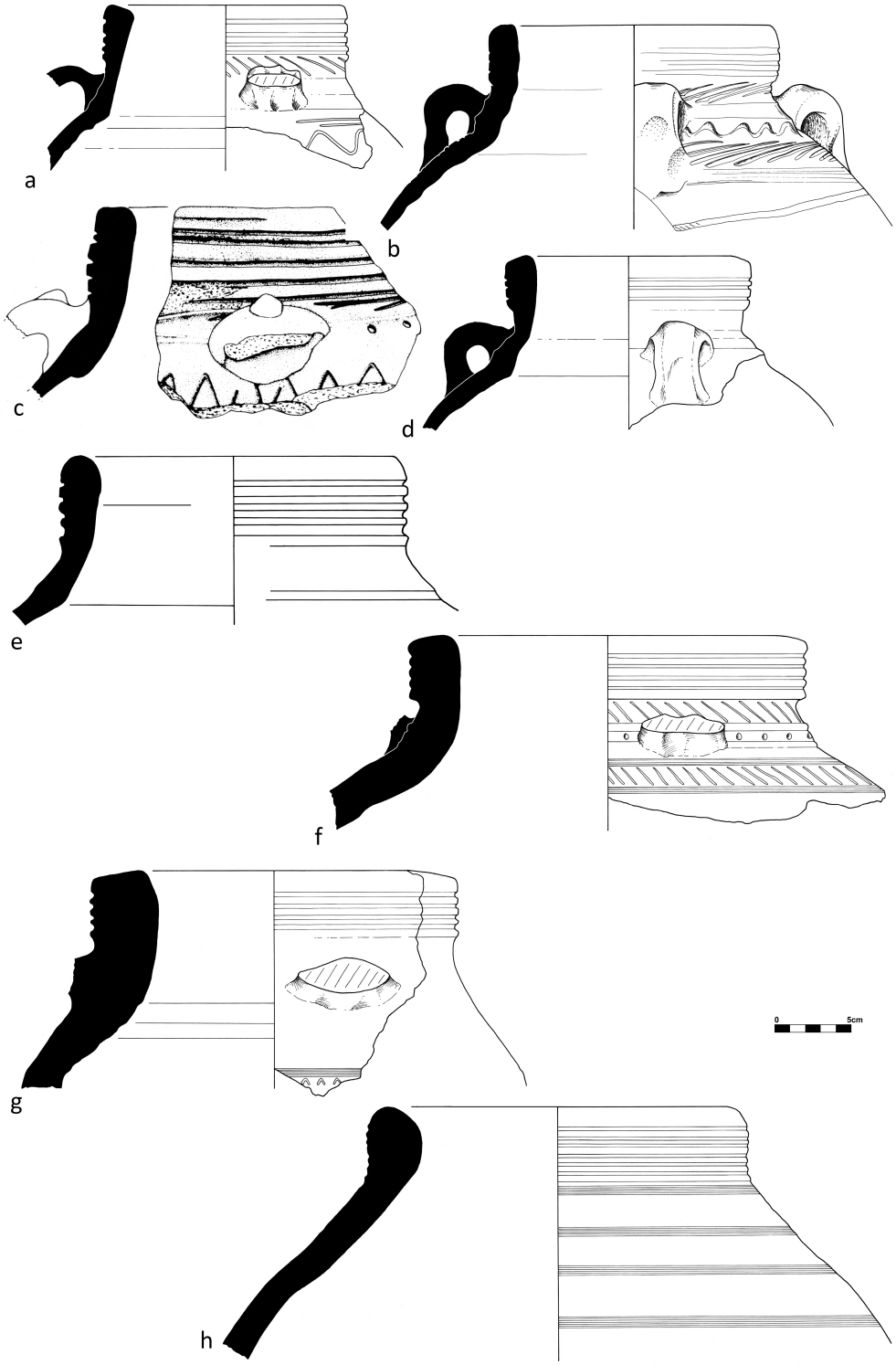
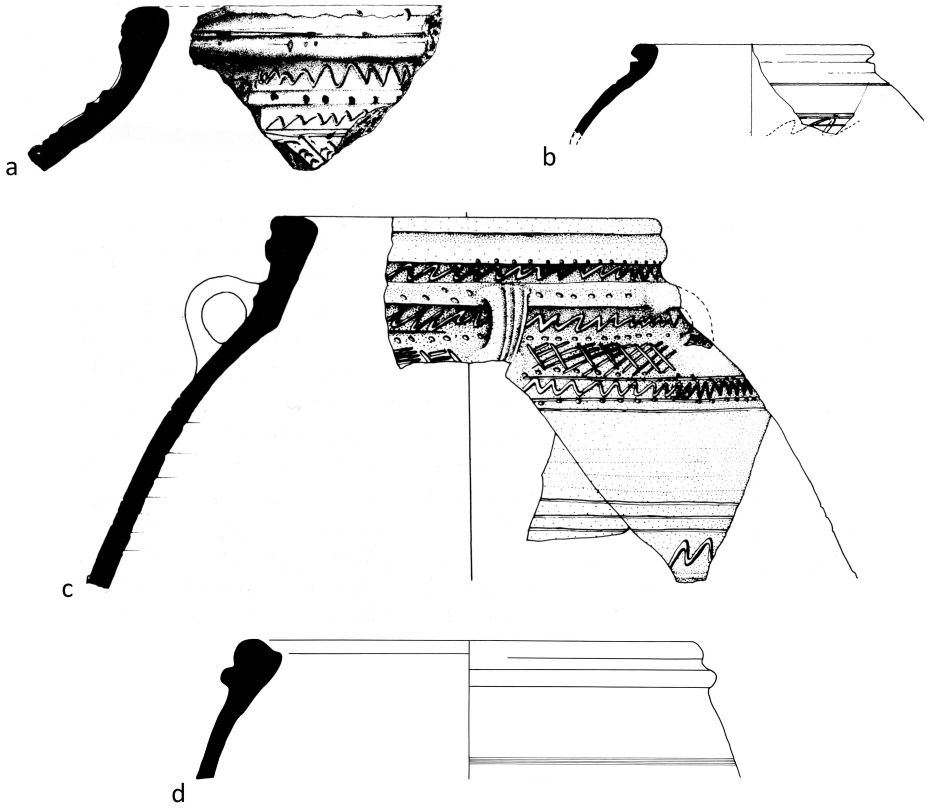


Figure 138 *a-h = HAR-LISV1*

Figure 138						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-LISV1	HARLIM	Siraf		2007.6001,2435	1:4
b	HAR-LISV1	HARLIM	Siraf		2007.6001,430	1:4
c	HAR-LISV1	REBROS	Manda	Chittick, 1984: 40: c		1:4
d	HAR-LISV1	HARLIM	Siraf		2007.6001,216	1:4
e	HAR-LISV1	HARLIM	Williamson/ K36A		3609	1:4
f	HAR-LISV1	HARLIM	Siraf		2007.6001,9600	1:4
g	HAR-LISV1	HARLIM	Siraf		2007.6001,217	1:4
h	HAR-LISV1	SPORC	Siraf		2007.6001,4380	1:4

HAR-LISV2 - REBROS



HAR-LISV3 - HARLIM, REBROS

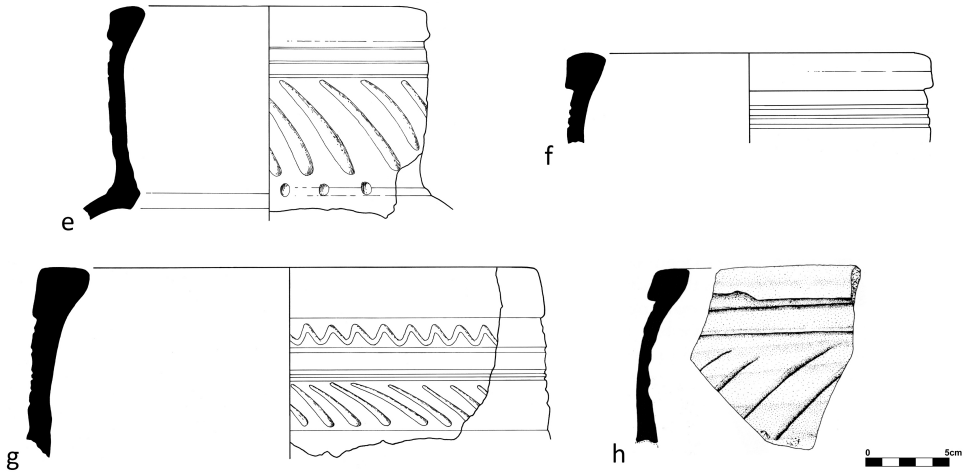
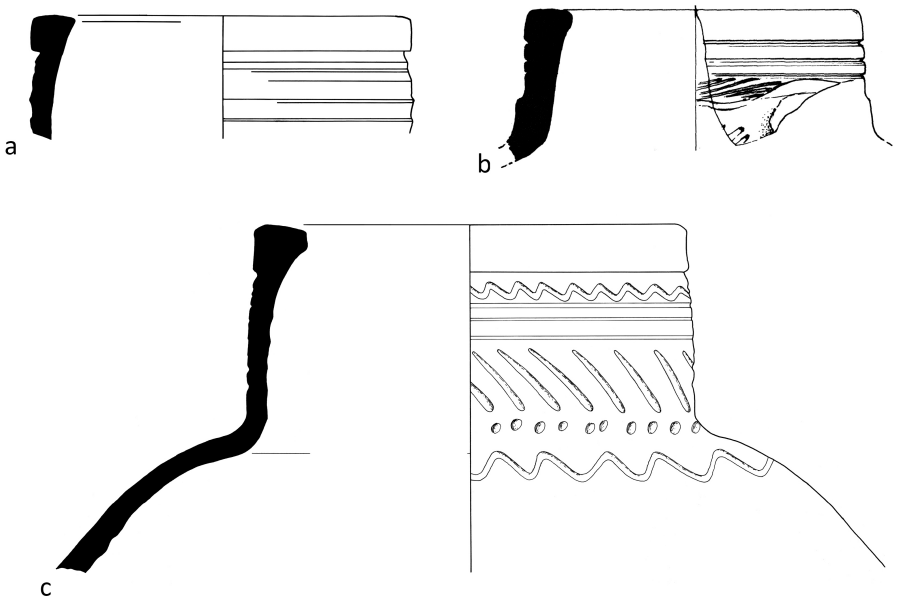


Figure 139 *a-d = HAR-LISV2; e-h = HAR-LISV3*

Figure 139						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-LISV2	REBROS	Manda	Chittick, 1984: 40: d		1:4
b	HAR-LISV2	REBROS	Sohar	Kervran, 2004: fig. 30: 1	1184	1:4
c	HAR-LISV2	REBROS	Manda	Chittick, 1984: 40: a		1:4
d	HAR-LISV2	REBROS	Williamson/ H12		2271	1:4
e	HAR-LISV3	HARLIM	Siraf		2007.6001,8441	1:4
f	HAR-LISV3	REBROS	Siraf		2007.6001,7489	1:4
g	HAR-LISV3	REBROS	Siraf		2007.6001,4267	1:4
h	HAR-LISV3	REBROS	Manda	Chittick, 1984: 41: a		1:4

HAR-LISV3 - HARLIM, REBROS



HAR-LISV4 - HARLIM, REBROS

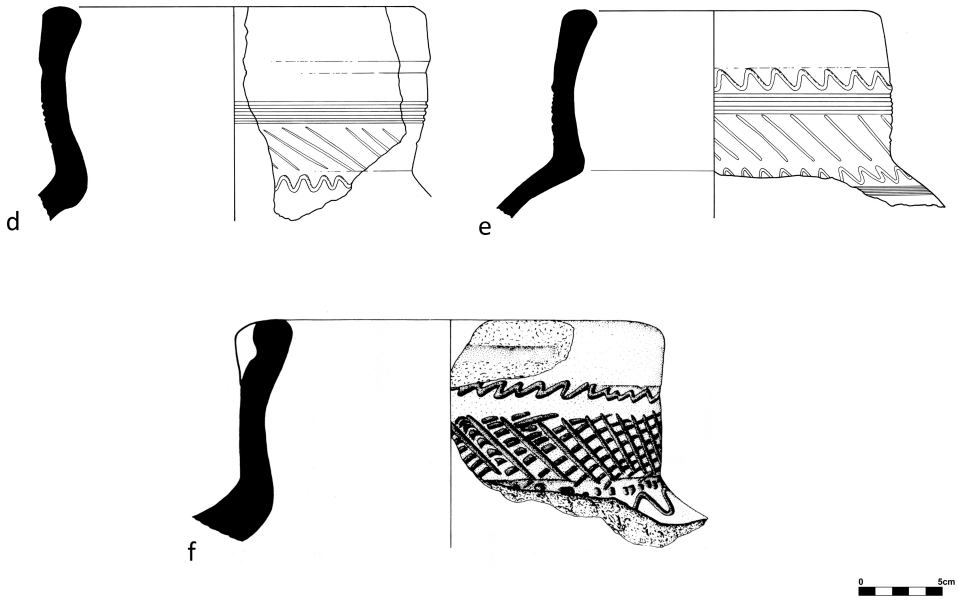


Figure 140 *a-c = HAR-LISV3; d-f = HAR-LISV4*

Figure 140						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-LISV3	REBROS	Williamson/ D30		1426	1:4
b	HAR-LISV3	REBROS	Sohar	Kervran, 2004: fig. 30: 2	2169.2	1:4
c	HAR-LISV3	REBROS	Siraf		2007.6001,8307	1:4
d	HAR-LISV4	REBROS	Siraf		2007.6001,600	1:4
e	HAR-LISV4	HARLIM	Siraf		2007.6001,130	1:4
f	HAR-LISV4	HARLIM	Manda	Chittick, 1984: 40: b		1:4

HAR-LISV5 - HARLIM

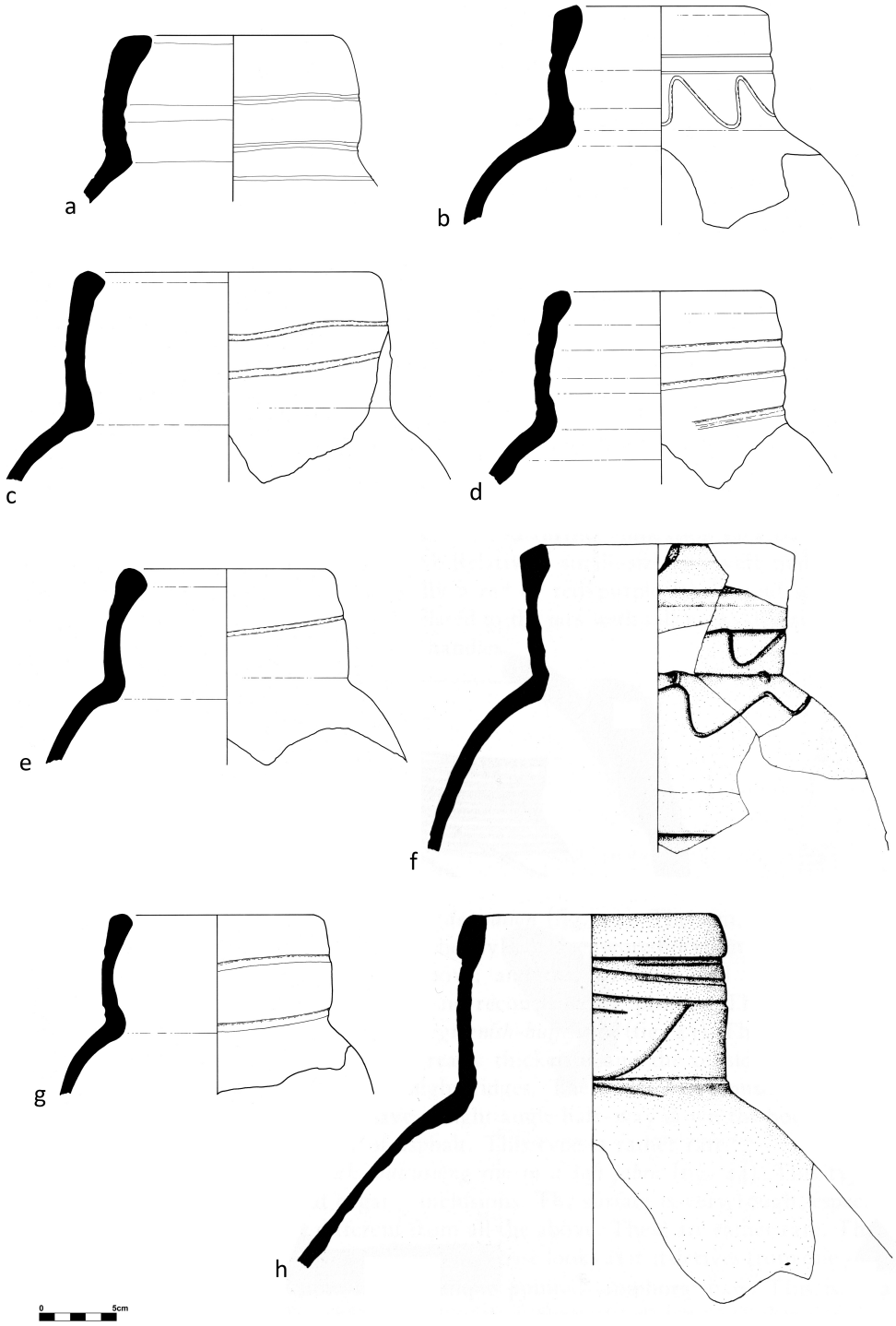
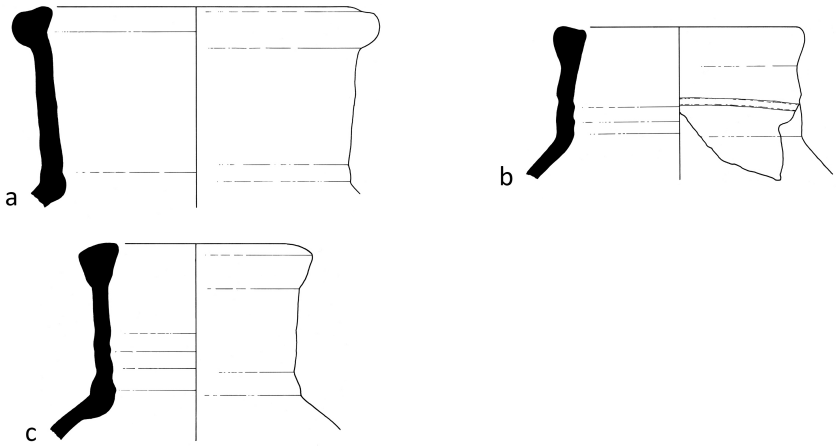


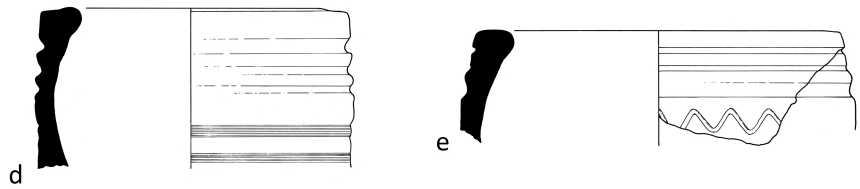
Figure 141 *a-h = HAR-LISV5*

Figure 141						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-LISV5	HARLIM	Siraf		2007.6001,447	1:4
b	HAR-LISV5	HARLIM	Siraf		2007.6001,229	1:4
c	HAR-LISV5	HARLIM	Siraf		2007.6001,3908	1:4
d	HAR-LISV5	HARLIM	Siraf		2007.6001,6914	1:4
e	HAR-LISV5	HARLIM	Siraf		2007.6001,6595	1:4
f	HAR-LISV5	HARLIM	Manda	Chittick, 1984: 41: g		1:4
g	HAR-LISV5	HARLIM	Siraf		2007.6001,227	1:4
h	HAR-LISV5	HARLIM	Manda	Chittick, 1984: 41: e		1:4

HAR-LISV6 - HARLIM



HAR-LISV7 - CREAC



HAR-LISV8 - HARLIM, CREAC

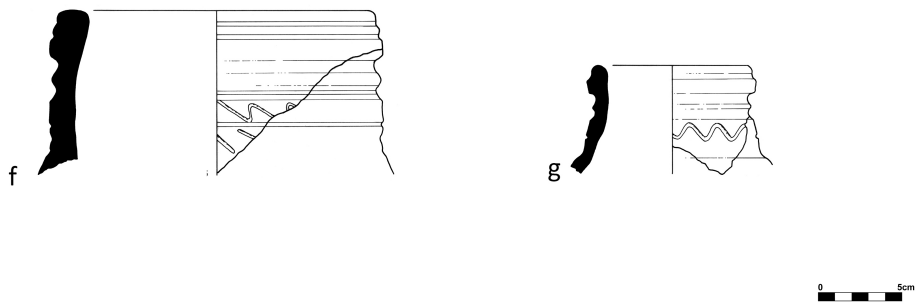
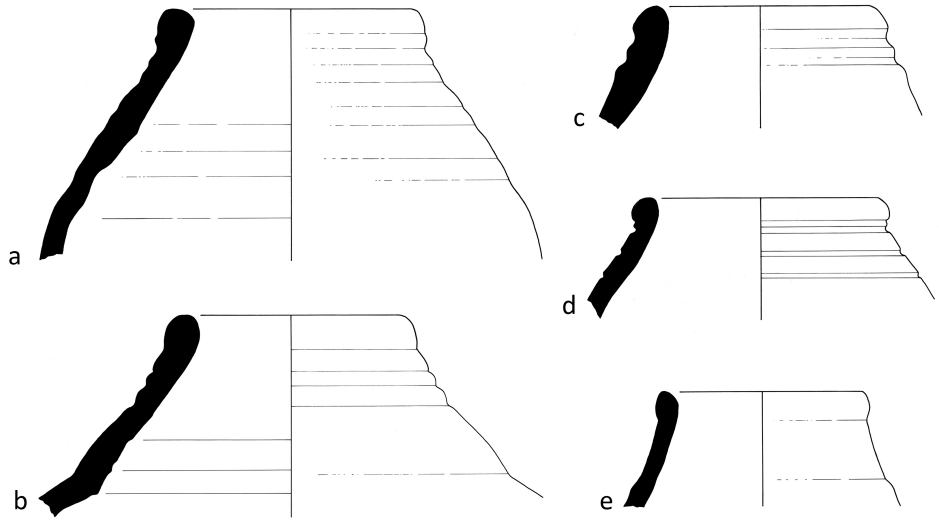


Figure 142 *a-c = HAR-LISV6; d-e = HAR-LISV7; f-g = HAR-LISV8*

Figure 142						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-LISV6	HARLIM	Siraf		2007.6001,8039	1:4
b	HAR-LISV6	HARLIM	Siraf		2007.6001,6982	1:4
c	HAR-LISV6	HARLIM	Siraf		2007.6001,5014	1:4
d	HAR-LISV7	CREAC	Siraf		2007.6001,7206	1:4
e	HAR-LISV7	CREAC	Siraf		2007.6001,7837	1:4
f	HAR-LISV8	CREAC	Siraf		2007.6001,7835	1:4
g	HAR-LISV8	HARLIM	Siraf		2007.6001,7900	1:4

HAR-LISV9 - HARLIM, CREAC



HAR-LISV10 - HARLIM

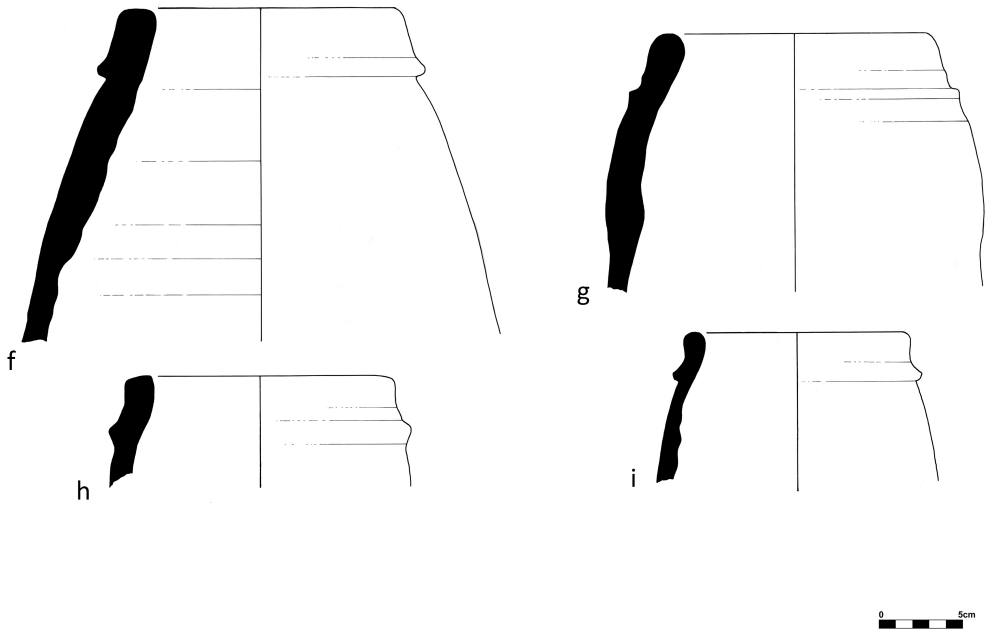
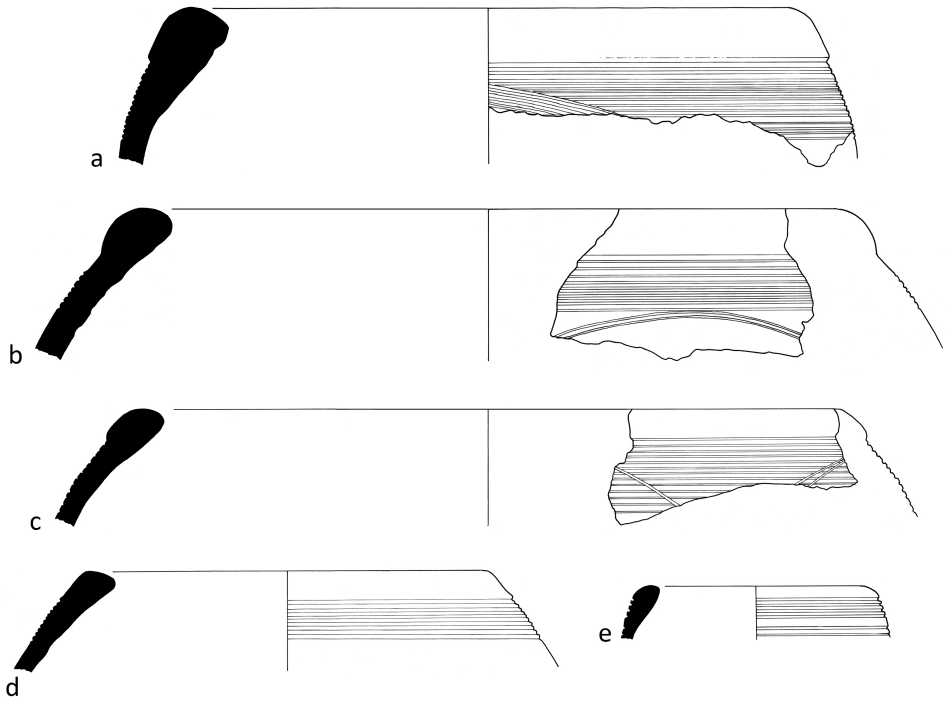


Figure 143 *a-e = HAR-LISV9; f-i = HAR-LISV10*

Figure 143						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-LISV9	HARLIM	Siraf		2007.6001,3858	1:4
b	HAR-LISV9	HARLIM	Siraf		2007.6001,7942	1:4
c	HAR-LISV9	CREAC	Siraf		2007.6001,7610	1:4
d	HAR-LISV9	CREAC	Siraf		2007.6001,446	1:4
e	HAR-LISV9	HARLIM	Siraf		2007.6001,6567	1:4
f	HAR-LISV10	HARLIM	Siraf		2007.6001,5109	1:4
g	HAR-LISV10	HARLIM	Siraf		2007.6001,3147	1:4
h	HAR-LISV10	HARLIM	Siraf		2007.6001,4469	1:4
i	HAR-LISV10	HARLIM	Siraf		2007.6001,8853	1:4

HAR-LISV11 - REBROS



HAR-LISV12 - HARLIM

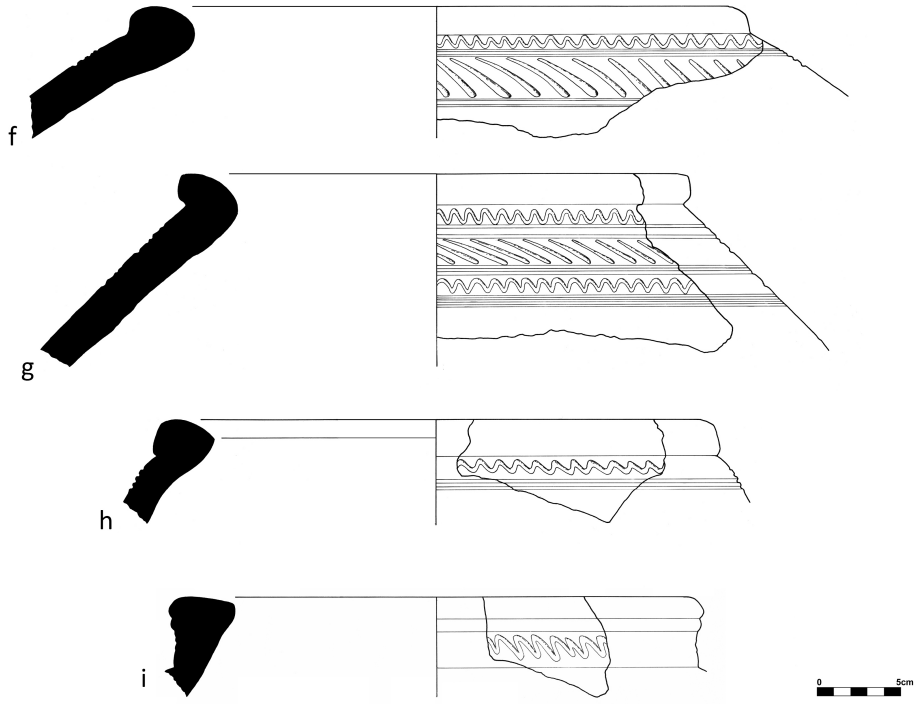
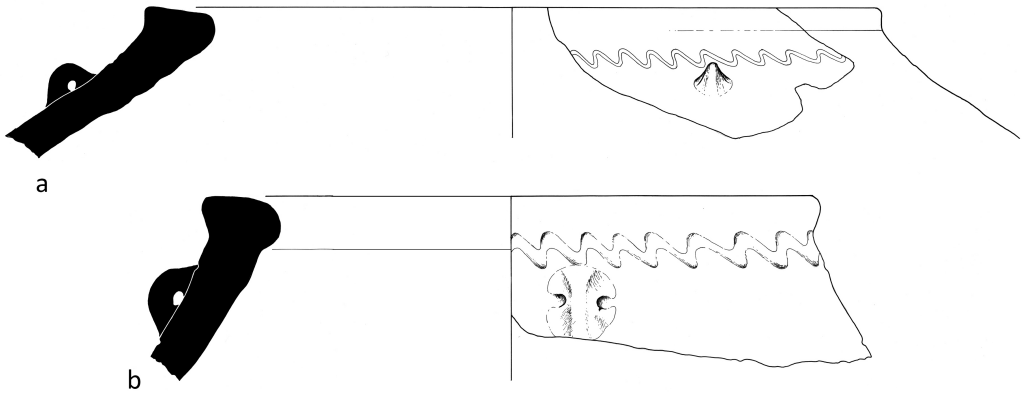


Figure 144 *a-e = HAR-LISV11; f-i = HAR-LISV12*

Figure 144						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-LISV11	REBROS	Siraf		2007.6001,129	1:4
b	HAR-LISV11	REBROS	Siraf		2007.6001,8933	1:4
c	HAR-LISV11	REBROS	Siraf		2007.6001,4265	1:4
d	HAR-LISV11	REBROS	Siraf		2007.6001,3725	1:4
e	HAR-LISV11	REBROS	Siraf		2007.6001,5204	1:4
f	HAR-LISV12	HARLIM	Siraf		2007.6001,788	1:4
g	HAR-LISV12	HARLIM	Siraf		2007.6001,6915	1:4
h	HAR-LISV12	HARLIM	Siraf		2007.6001,6338	1:4
i	HAR-LISV12	HARLIM	Siraf		2007.6001,1103	1:4

HAR-LISV14 - FINLIM



HAR-LISV15 - HARLIM, REBROS

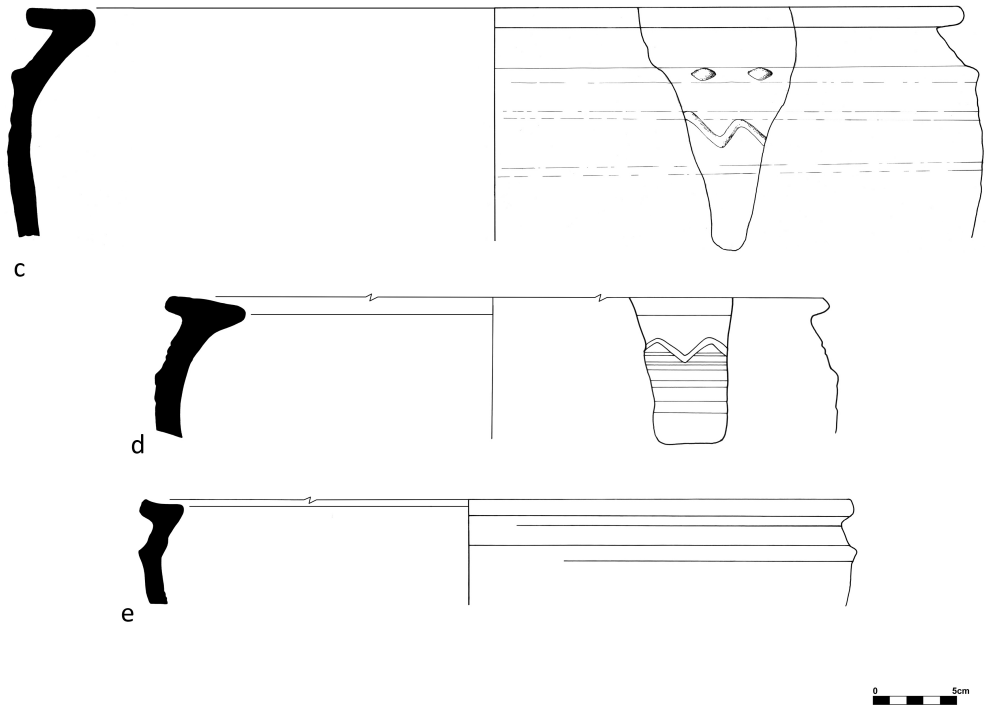


Figure 145 *a-b = HAR-LISV14; c-e = HAR-LISV15*

Figure 145						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	HAR-LISV14	FINLIM	Siraf		2007.6001,9405	1:4
b	HAR-LISV14	FINLIM	Siraf		2007.6001,9838	1:4
c	HAR-LISV15	HARLIM	Siraf		2007.6001,2319	1:4
d	HAR-LISV15	REBROS	Williamson/ B19		15027	1:4
e	HAR-LISV15	HARLIM	Williamson/ D14D		1385	1:4

FOP – Fine Orange Painted Ware

Type	Form	Class(es)	Illustration	Concordance	Description
FOP-OR1	Beaker	FOPW.1-2	Fig. 146: a-d	Kennet, 2004: Type 89	Gently everted lip

EGG – Eggshell Ware

Type	Form	Class(es)	Illustration	Concordance	Description
EGG-CR1	Jar	EGG.PI	Figs. 146: e-o; 147		Flared-necked jar with a fine pointed lip
EGG-CR2	Jar	EGG.PI	Fig. 148: a-h		Flattened or slightly concave sides, with vertical impressed indentations, and a flared rim
EGG-CR3	Jar	EGG.PI	Fig. 148: i-l		Flattened sides with plain surfaces
EGG-CR4	Jar	EGG.PI	Fig. 149: a-f		Small vessel, with a narrow pedestal base, and a flared conical rim
EGG-CR5	Jar	EGG.PI	Fig. 149: g-l		Small jar with a piriform body
EGG-CR6	Jar	EGG.PI	Fig. 149: m-n		Small jar with a globular body
EGG-CR7	Jar	EGG.PI	Fig. 150: a-c		Flat base and sides with an angled shoulder
EGG-CR8	Jar	EGG.PI	Fig. 150: d-h	Kennet, 2004: Type 67	Flared neck, with a pointed lip, and a high carination break
EGG-CR9	Jar	EGG.PI	Fig. 150: i-l		Straight-sided vessel, with a kink in the wall below the rim
EGG-CR10	Jar	EGG.PI	Fig. 151: a-b		Complex bifurcating rim, with a thumb-indented lower lip
EGG-B1	Jar	EGG.PI	Fig. 152: a-c		Delicate, flat base, with an internal recess forming a small rounded foot
EGG-B2	Jar	EGG.PI	Fig. 152: d-l		Flat or concave, with a small lip at the edge
EGG-B3	Jar	EGG.PI	Not illustrated		Simple flat base
EGG-B4	Jar	EGG.PI	Fig. 152: m-p		Flat pedestal base, with a projecting foot
EGG-H1	Jar	EGG.PI	Fig. 151: c-m		Delicate turban-shaped thumb-stop
EGG-H2	Jar	EGG.PI	Fig. 151: n-p		Related to H4 but has a flat thumb-stop with fine radiating impressions
OO	Various	EGG.M	Fig. 158: a-f		Various forms

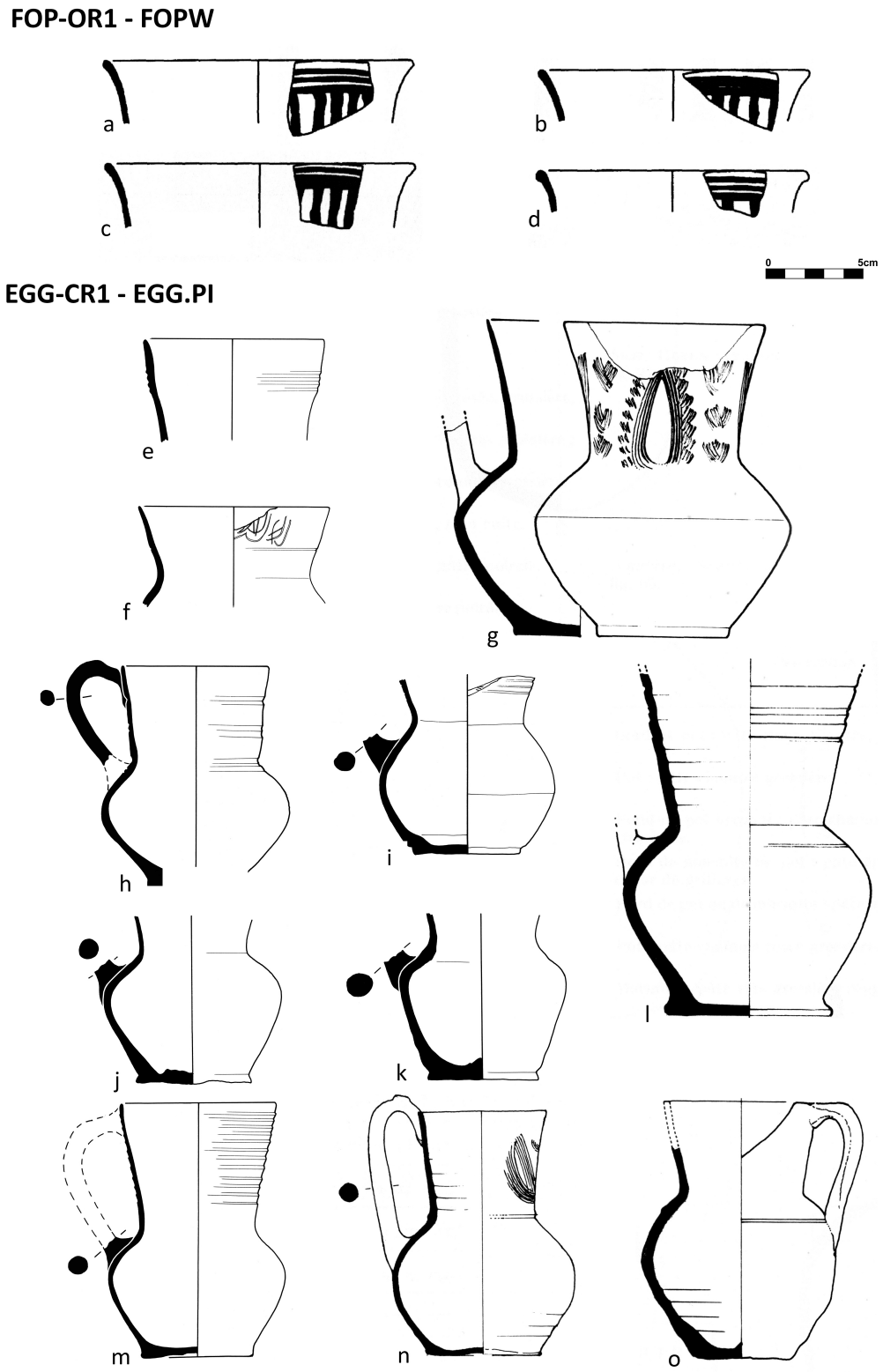


Figure 146 *a-d = FOP-OR1 (Type 89); e-o = EGG-CR1*

Figure 146						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	FOP-OR1	FOPW	Kush	Kennet: 2004: fig. 34	K4899	1:3
b	FOP-OR1	FOPW	Kush	Kennet: 2004: fig. 34	K4901	1:3
c	FOP-OR1	FOPW	Kush	Kennet: 2004: fig. 34	K4903	1:3
d	FOP-OR1	FOPW	Kush	Kennet: 2004: fig. 34	K4904	1:3
e	EGG-CR1	EGG.PI	Siraf		2007.6001,2001	1:3
f	EGG-CR1	EGG.PI	Siraf		2007.6001,6603	1:3
g	EGG-CR1	EGG.PI	Susa	Kervran, 1977: fig. 31: 4	AP.E.73 1237.22	1:3
h	EGG-CR1	EGG.PI	Siraf		2007.6001,8277	1:3
i	EGG-CR1	EGG.PI	Siraf		2007.6001,829	1:3
j	EGG-CR1	EGG.PI	Siraf		2007.6001,8949	1:3
k	EGG-CR1	EGG.PI	Siraf		2007.6001,7671	1:3
l	EGG-CR1	EGG.PI	Susa	Kervran, 1977: fig. 31: 5	AP.74 556.4	1:3
m	EGG-CR1	EGG.PI	Siraf		2007.6001,8585	1:3
n	EGG-CR1	EGG.PI	Sohar	Kervran, 2004: fig. 23: 12	603	1:3
o	EGG-CR1	EGG.PI	Susa	Kervran, 1977: fig. 28: 2	AP.75 731.2	1:3

EGG-CR1 - EGG.PI

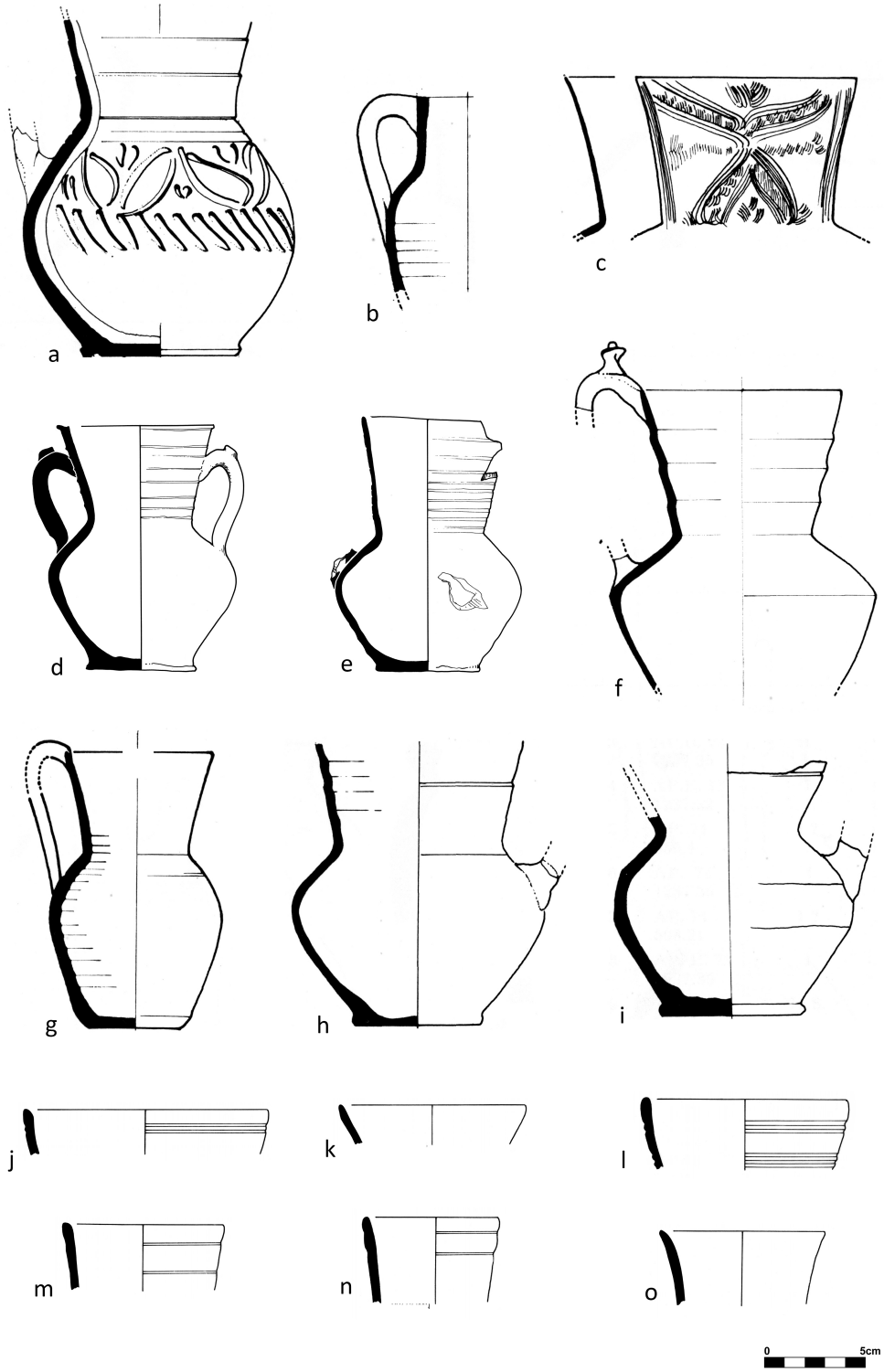
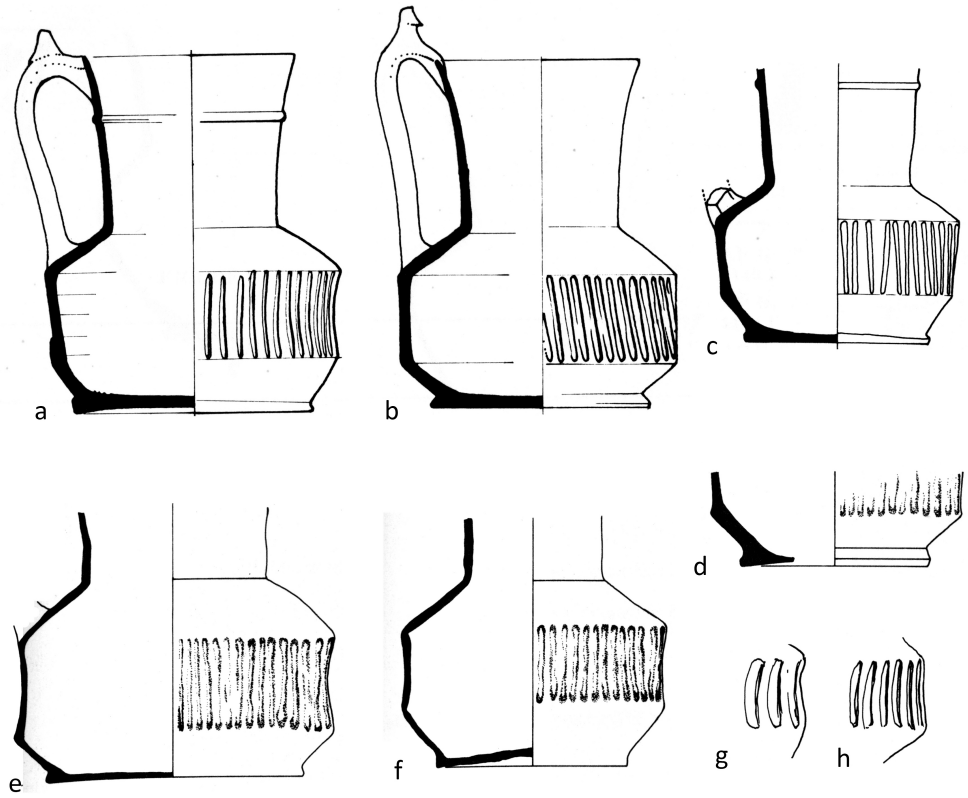


Figure 147 *a-o = EGG-CR1*

Figure 147						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	EGG-CR1	EGG.PI	Susa	Kervran, 1977: fig. 28: 4	AP.E.74 1471	1:3
b	EGG-CR1	EGG.PI	Susa	Kervran, 1977: fig. 28: 3	AP.Isl.73 833.44	1:3
c	EGG-CR1	EGG.PI	Susa	Kervran, 1977: fig. 31: 3	AP.E.73 1237.35	1:3
d	EGG-CR1	EGG.PI	Siraf		2007.6001,5357	1:3
e	EGG-CR1	EGG.PI	Siraf		2007.6001,5360	1:3
f	EGG-CR1	EGG.PI	Susa	Kervran, 1977: 31: 1	AP.E73 1237.15	1:3
g	EGG-CR1	EGG.PI	Susa	Kervran, 1977: 28: 1	AP.E.73 1237.6	1:3
h	EGG-CR1	EGG.PI	Susa	Kervran, 1977: 31: 2	AP.VR.75 532.2	1:3
i	EGG-CR1	EGG.PI	Susa	Kervran, 1977: 30: 6	AP.Isl.73 551.1	1:3
j	EGG-CR1	EGG.PI	Unguja Ukuu		UU14/1436	1:3
k	EGG-CR1	EGG.PI	Unguja Ukuu		UU14/1436	1:3
l	EGG-CR1	EGG.PI	Unguja Ukuu		UU14/1432	1:3
m	EGG-CR1	EGG.PI	Unguja Ukuu		UU14/1404E	1:3
n	EGG-CR1	EGG.PI	Unguja Ukuu		UU14/1423N	1:3
o	EGG-CR1	EGG.PI	Unguja Ukuu		UU14/1423N	1:3

EGG-CR2 - EGG.PI



EGG-CR3 - EGG.PI

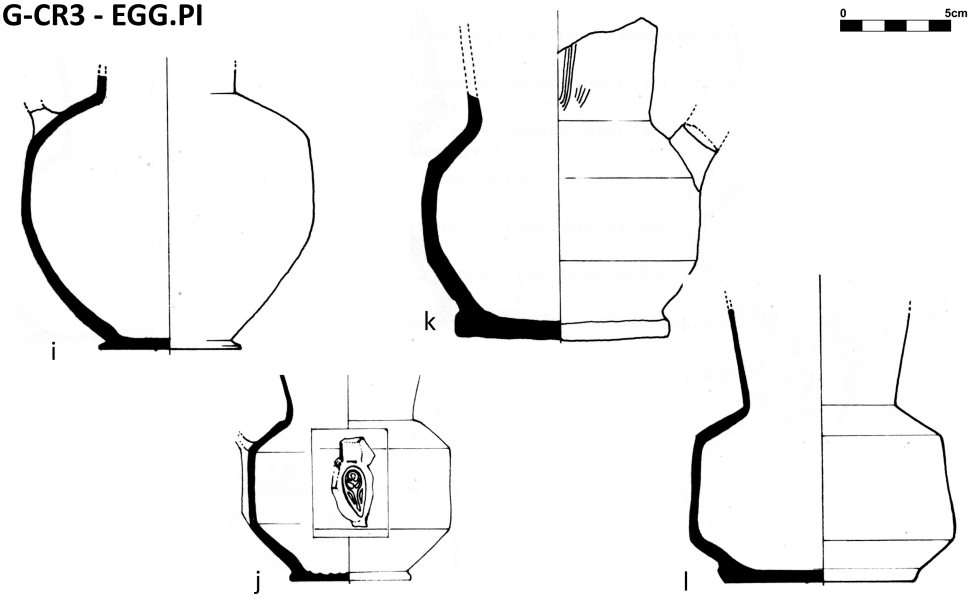
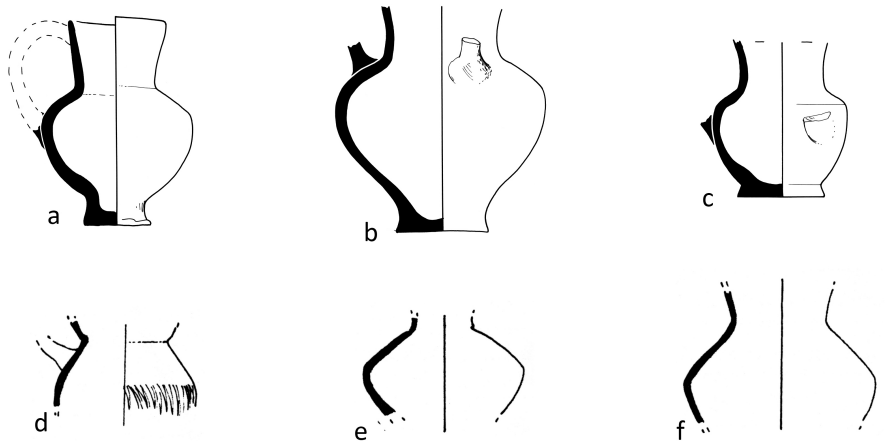


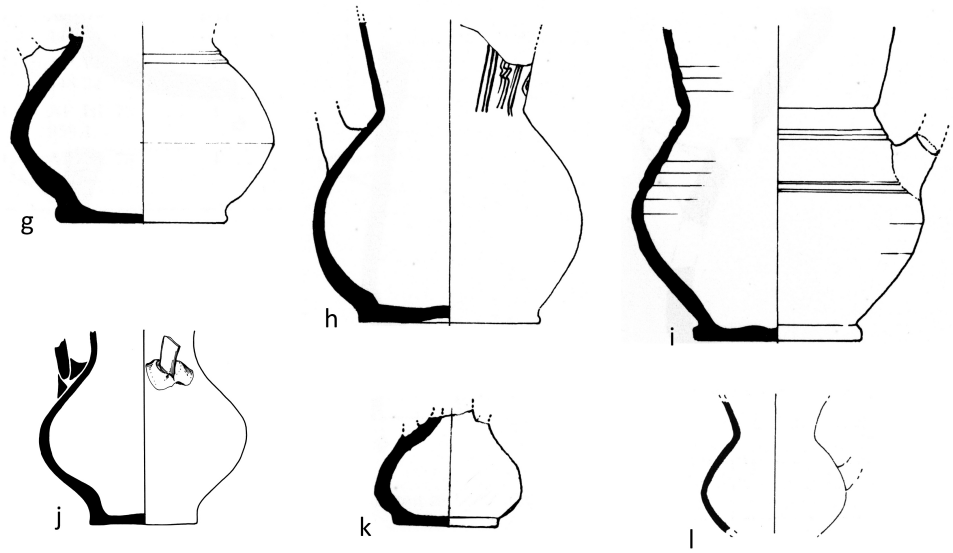
Figure 148 *a-h = EGG-CR2; i-l = EGG-CR3*

Figure 148						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	EGG-CR2	EGG.PI	Susa	Kervran, 1977: fig. 30: 2	AP.73 1237.4	1:3
b	EGG-CR2	EGG.PI	Susa	Kervran, 1977: 30: 1	AP.E.73 1237.3	1:3
c	EGG-CR2	EGG.PI	Susa	Kervran, 1977: 26: 4	AP.E.74 1606	1:3
d	EGG-CR2	EGG.PI	Ana	Northedge, *et al*., 1998: fig. 40: 3	DP404	1:3
e	EGG-CR2	EGG.PI	Ana	Northedge, *et al*., 1988: fig. 40: 1	DP325	1:3
f	EGG-CR2	EGG.PI	Ana	Northedge, *et al*., 1988: fig. 40: 2	DP351	1:3
g	EGG-CR2	EGG.PI	Sohar	Kervran, 2004: 23: 11	603	1:3
h	EGG-CR2	EGG.PI	Sohar	Kervran, 2004: 23: 10	603	1:3
i	EGG-CR3	EGG.PI	Susa	Kervran, 1977: fig. 30: 7	AP.E.73 1237.31	1:3
j	EGG-CR3	EGG.PI	Susa	Kervran, 1977: fig. 30: 3	AP.74 620.10	1:3
k	EGG-CR3	EGG.PI	Susa	Kervran, 1977: fig. 30: 5	AP.VR75 539.4	1:3
l	EGG-CR3	EGG.PI	Susa	Kervran, 1977: fig. 30: 4	AP.74 445.3	1:3

EGG-CR4 - EGG.PI



EGG-CR5 - EGG.PI

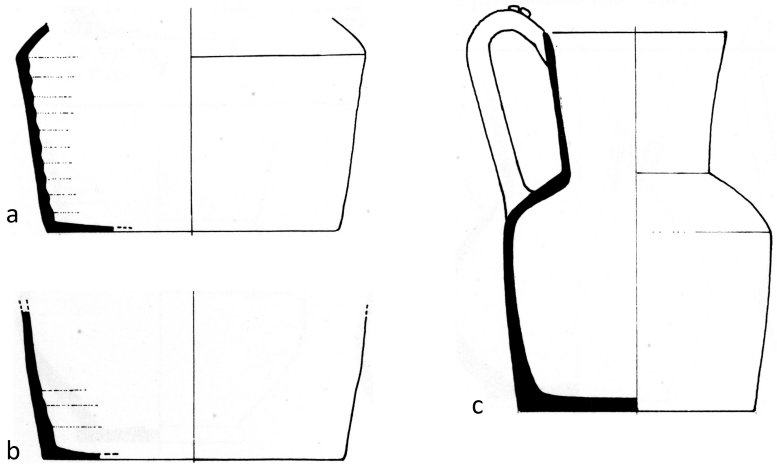


EGG-CR6 - EGG.PI

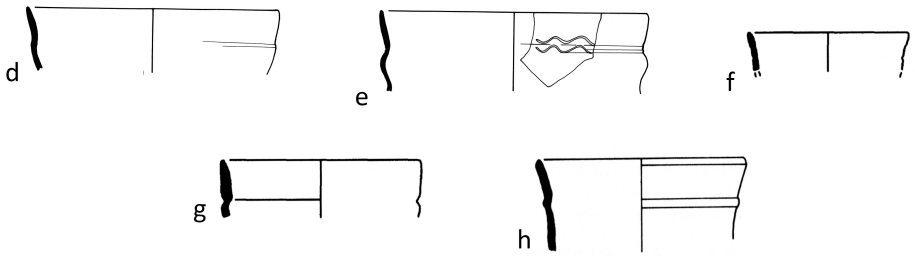
Figure 149 *a-f = EGG-CR4; g-l = EGG-CR5; m-n = EGG-CR6*

Figure 149						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	EGG-CR4	EGG.PI	Siraf		2007.6001,5361	1:3
b	EGG-CR4	EGG.PI	Siraf		2007.6001,8570	1:3
c	EGG-CR4	EGG.PI	Siraf		2007.6001,5247	1:3
d	EGG-CR4	EGG.PI	Sohar	Kervran, 2004: fig. 29: 7	1065.14	1:3
e	EGG-CR4	EGG.PI	Sohar	Kervran, 2004: fig. 29: 6	1065.8	1:3
f	EGG-CR4	EGG.PI	Sohar	Kervran, 2004: fig. 29: 10	1065.3	1:3
g	EGG-CR5	EGG.PI	Susa	Kervran, 1977: fig. 31: 9	AP.74 556.6	1:3
h	EGG-CR5	EGG.PI	Susa	Kervran, 1977: fig. 31: 11	AP.74 572.3	1:3
i	EGG-CR5	EGG.PI	Susa	Kervran, 1977: fig. 31: 12	AP.VR.75 1237.35	1:3
j	EGG-CR5	EGG.PI	Siraf		2007.6001,8569	1:3
k	EGG-CR5	EGG.PI	Susa	Kervran, 1977: fig. 28: 13	AP.E.73 1229.1	1:3
l	EGG-CR5	EGG.PI	Sohar	Kervran, 2004: fig. 32: 3	2189.3	1:3
m	EGG-CR6	EGG.PI	Siraf		2007.6001,5246	1:3
n	EGG-CR6	EGG.PI	Susa	Kervran, 1977: fig. 28: 14	AP.75 739.7	1:3

EGG-CR7 - EGG.PI



EGG-CR8 (Type 67) - EGG.PI



EGG-CR9 - EGG.PI

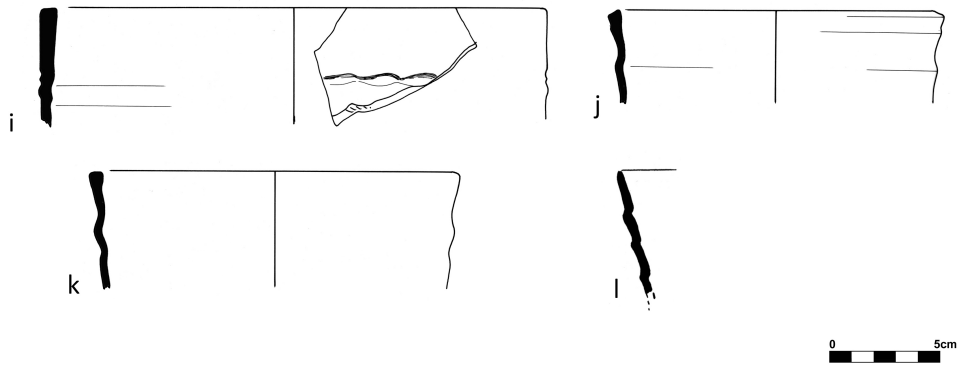
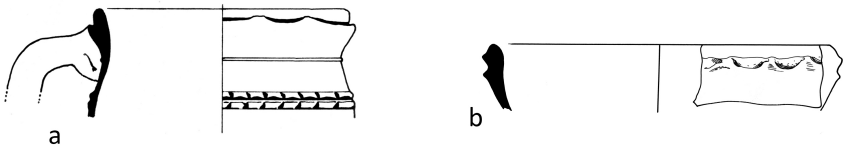


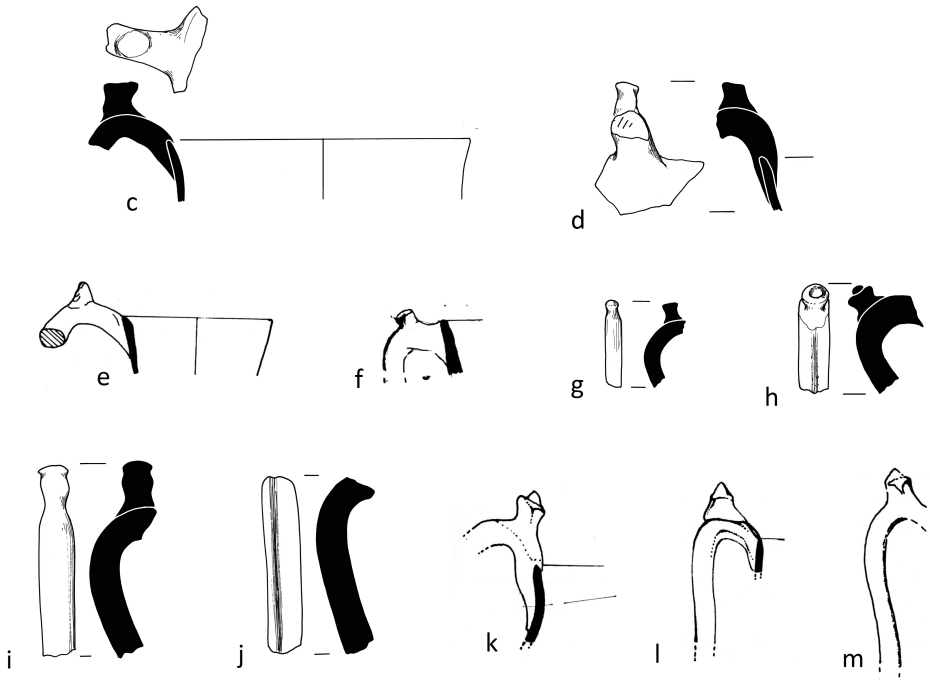
Figure 150 *a-c = EGG-CR7; d-h = EGG-CR8 (Type 67); i-l = EGG-CR9*

Figure 150						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	EGG-CR7	EGG.PI	Susa	Kervran, 1977: fig. 30: 9	AP.75 731.21	1:3
b	EGG-CR7	EGG.PI	Susa	Kervran, 1977: fig. 30: 10	AP.75	1:3
c	EGG-CR7	EGG.PI	Susa	Kervran, 1977: fig. 30: 8	Reserves Suse	1:3
d	EGG-CR8	EGG.PI	Siraf		2007.6001,7100	1:3
e	EGG-CR8	EGG.PI	Siraf		2007.6001,5108	1:3
f	EGG-CR8	EGG.PI	Kush	Kennet: 2004: fig. 28	K2391	1:3
g	EGG-CR8	EGG.PI	Kush	Kennet: 2004: fig. 28		1:3
h	EGG-CR8	EGG.PI	Ana	Northedge, *et al*., 1988: fig. 40: 8	DP401	1:3
i	EGG-CR9	EGG.PI	Siraf		2007.6001,6744	1:3
j	EGG-CR9	EGG.PI	Siraf		2007.6001,7203	1:3
k	EGG-CR9	EGG.PI	Siraf		2007.6001,7032	1:3
l	EGG-CR9	EGG.PI	Sohar	Kervran, 2004: fig. 23: 9	603	1:3

EGG-CR10 - EGG.PI



EGG-H1 - EGG.PI



EGG-H2 - EGG.PI

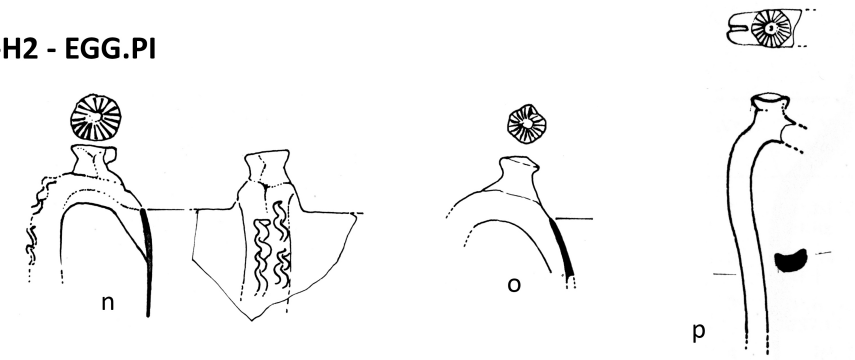
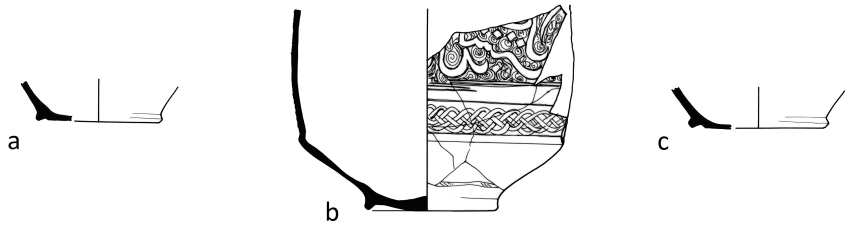


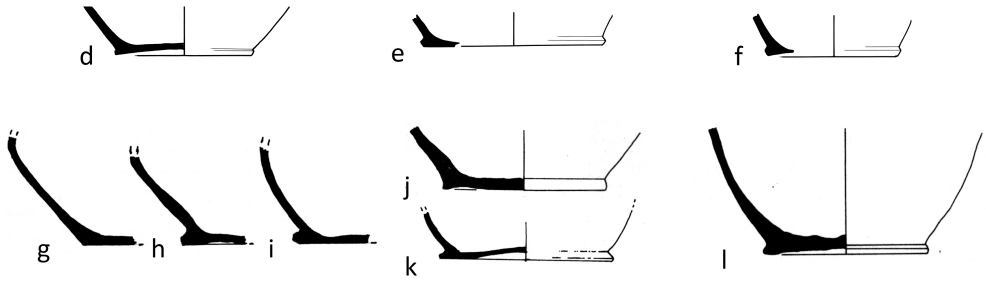
Figure 151 *a-b = EGG-CR10; c-m = EGG-H1; n-p = EGG-H2*

Figure 151						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	EGG-CR10	EGG.PI	Susa	Kervran, 1977: 24: 12	AP.Isl.73 584.28	1:3
b	EGG-CR10	EGG.PI	Siraf		2007.6001,1246	1:3
c	EGG-H1	EGG.PI	Siraf		2007.6001,3157	1:3
d	EGG-H1	EGG.PI	Siraf		2007.6001,7235	1:3
e	EGG-H1	EGG.PI	Sohar	Kervran, 2004: 21: 3	633.2	1:3
f	EGG-H1	EGG.PI	Sohar	Kervran, 2004: 13: 9	636	1:3
g	EGG-H1	EGG.PI	Siraf		2007.6001,5158	1:3
h	EGG-H1	EGG.PI	Siraf		2007.6001,5155	1:3
i	EGG-H1	EGG.PI	Siraf		2007.6001,1587	1:3
j	EGG-H1	EGG.PI	Siraf		2007.6001,1113	1:3
k	EGG-H1	EGG.PI	Susa	Kervran, 1977: 31: 6	AP.74 1237.35	1:3
l	EGG-H1	EGG.PI	Susa	Kervran, 1977: 31: 7	AP.74 598.21	1:3
m	EGG-H1	EGG.PI	Sohar	Kervran, 2004: fig. 23: 14	603	1:3
n	EGG-H2	EGG.PI	Susa	Kervran, 1977: 24: 4	AP.74 626.9	1:3
o	EGG-H2	EGG.PI	Susa	Kervran, 1977: 24: 1	AP.Isl.73 844.18	1:3
p	EGG-H2	EGG.PI	Susa	Kervran, 1977: 31: 8	AP.E.73 1237.35	1:3

EGG-B1 - EGG.PI



EGG-B2 - EGG.PI



EGG-B4 - EGG.PI

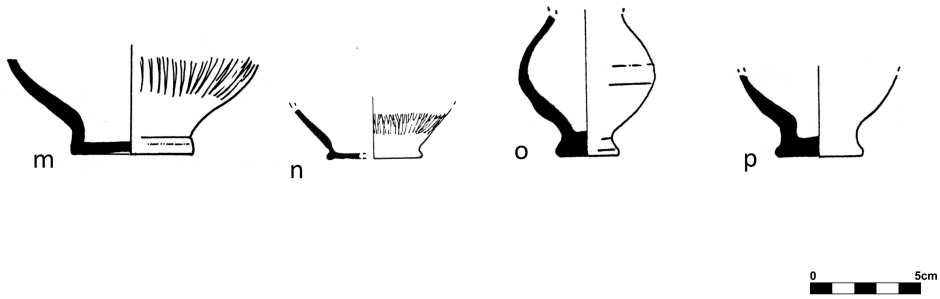


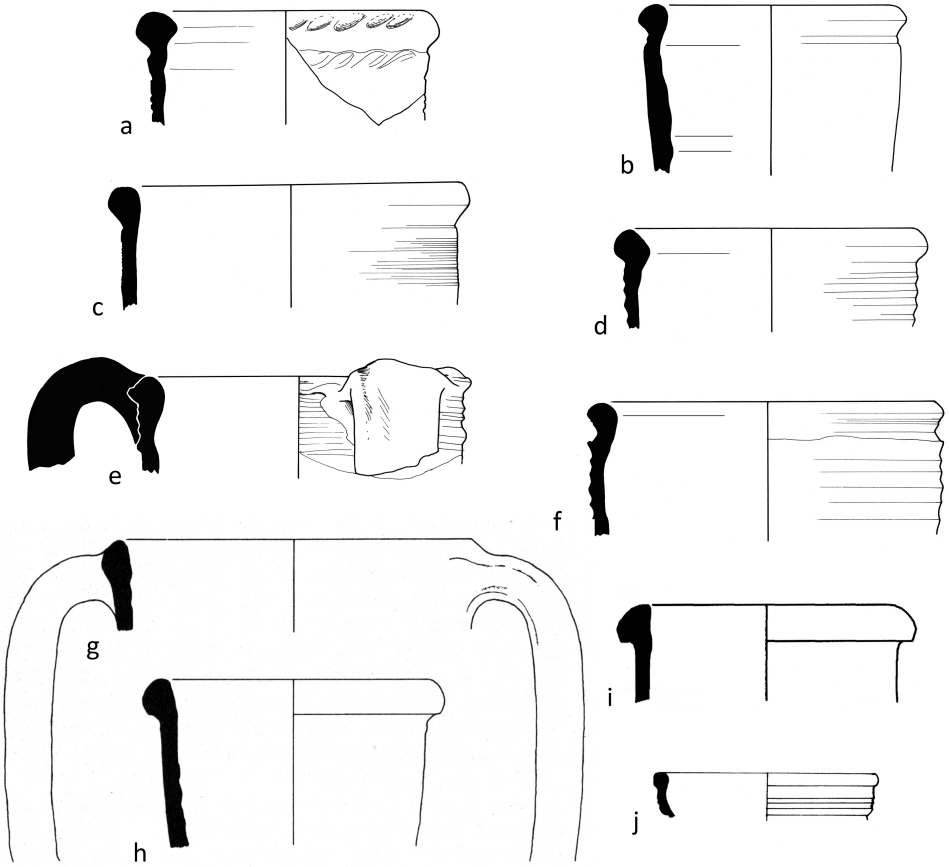
Figure 152 *a-c = EGG-B1; d-l = EGG-B2; m-p = EGG-B4*

Figure 152						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	EGG-B1	EGG.PI	Siraf		2007.6001,5146	1:3
b	EGG-B1	EGG.PI	Siraf		2007.6001,5734	1:3
c	EGG-B1	EGG.PI	Siraf		2007.6001,4297	1:3
d	EGG-B2	EGG.PI	Siraf		2007.6001,1108	1:3
e	EGG-B2	EGG.PI	Siraf		2007.6001,4479	1:3
f	EGG-B2	EGG.PI	Siraf		2007.6001,5148	1:3
g	EGG-B2	EGG.PI	Sohar	Kervran, 2004: fig. 23: 17	603	1:3
h	EGG-B2	EGG.PI	Sohar	Kervran, 2004: fig. 23: 16	603	1:3
i	EGG-B2	EGG.PI	Sohar	Kervran, 2004: fig. 23: 15	603	1:3
j	EGG-B2	EGG.PI	Ana	Northedge, *et al*., 1988: fig. 38: 20	DP20	1:3
k	EGG-B2	EGG.PI	Sohar	Kervran, 2004: fig. 25: 10	1538.4	1:3
l	EGG-B2	EGG.PI	Ana	Northedge, *et al*., 1988: fig. 40: 12		1:3
m	EGG-B4	EGG.PI	Sohar	Kervran, 2004: 34: 7	2203.2	1:3
n	EGG-B4	EGG.PI	Sohar	Kervran, 2004: 32: 2	2187.89	1:3
o	EGG-B4	EGG.PI	Sohar	Kervran, 2004: 29: 11	1065.12	1:3
p	EGG-B4	EGG.PI	Sohar	Kervran, 2004: 29: 9	1065.6	1:3

WHI – White Wares

Type	Form	Class(es)	Illustration	Type Concordance	Description
WHI-CR1	Jar	WHITE.PI	Fig. 153: a-j	Kennet, 2004: Type 109	Straight-necked jar with a thickened rounded lip
WHI-CR2	Jar	WHITE.PI	Fig. 153: k-n		Pointed everted lip
WHI-CR3	Jar	WHITE.PI	Fig. 154: a-e		Folded lip, with a slightly splayed mouth
WHI-CR4	Jar	WHITE.PI	Fig. 154: f-h		Internally thickened lip
WHI-CR5	Jar	WHITE.PI	Fig. 154: i-j		Complex hooked rim form, with thumb impressed 'pie crust' pattern along the outer edge
WHI-CR6	Jar	WHITE.PI	Fig. 154: k-l		Folded, triangular section rim
WHI-F1	Jar	WHITE.PI	Fig. 155		Ring-and-dot decoration
WHI-F2	Jar	WHITE.PI	Fig. 156: a-g		Comb-and-dot decoration
WHI-F3	Jar	WHITE.PI	Not illustrated		Fine combing drawn through with broad lines
WHI-H1	Jar	WHITE.PI	Figs. 156: h-k; 157: a-g		Robust handle with turban-shaped thumb-stop
WHI-H2	Jar	WHITE.PI	Fig. 157: h-l		Thick circular section strap handle, with applique decoration, or paired twisted strands
OO	Various	WHITE.M	Fig. 158: g-o		Various forms

WHI-CR1 - WHITE.PI



WHI-CR2 - WHITE.PI

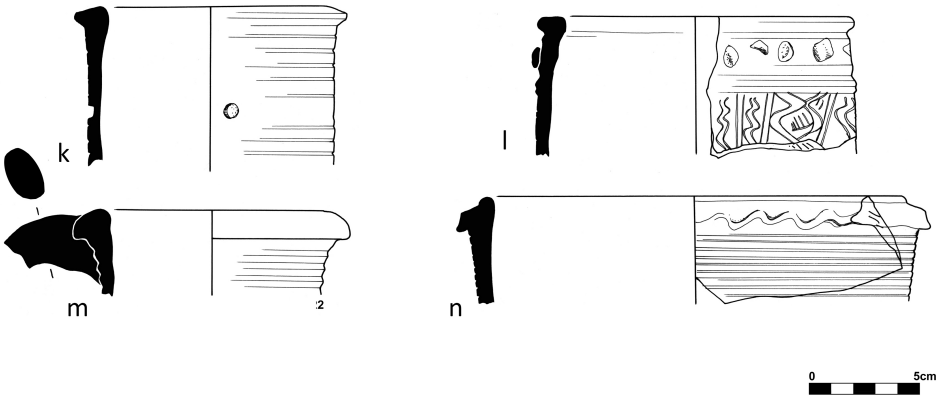


Figure 153 *a-j = WHI-CR1 (Type 109); k-n = WHI-CR2*

Figure 153						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	WHI-CR1	WHITE.PI	Siraf		2007.6001,6714	1:3
b	WHI-CR1	WHITE.PI	Siraf		2007.6001,7861	1:3
c	WHI-CR1	WHITE.PI	Siraf		2007.6001,5765	1:3
d	WHI-CR1	WHITE.PI	Siraf		2007.6001,6717	1:3
e	WHI-CR1	WHITE.PI	Siraf		2007.6001,7429	1:3
f	WHI-CR1	WHITE.PI	Siraf		2007.6001,8529	1:3
g	WHI-CR1	WHITE.PI	Ana	Northedge, *et al*., 1988: fig. 38: 22	DP22	1:3
h	WHI-CR1	WHITE.PI	Ana	Northedge, *et al*., 1988: fig. 38: 23	DR34	1:3
i	WHI-CR1	WHITE.PI	Kush	Kennet: 2004: fig. 28		1:3
j	WHI-CR1	WHITE.PI	Sohar	Kervran, 2004: fig. 21: 4	634.1	1:3
k	WHI-CR2	WHITE.PI	Siraf		2007.6001,6736	1:3
l	WHI-CR2	WHITE.PI	Siraf		2007.6001,6562	1:3
m	WHI-CR2	WHITE.PI	Siraf		2007.6001,7922	1:3
n	WHI-CR2	WHITE.PI	Siraf		2007.6001,3135	1:3

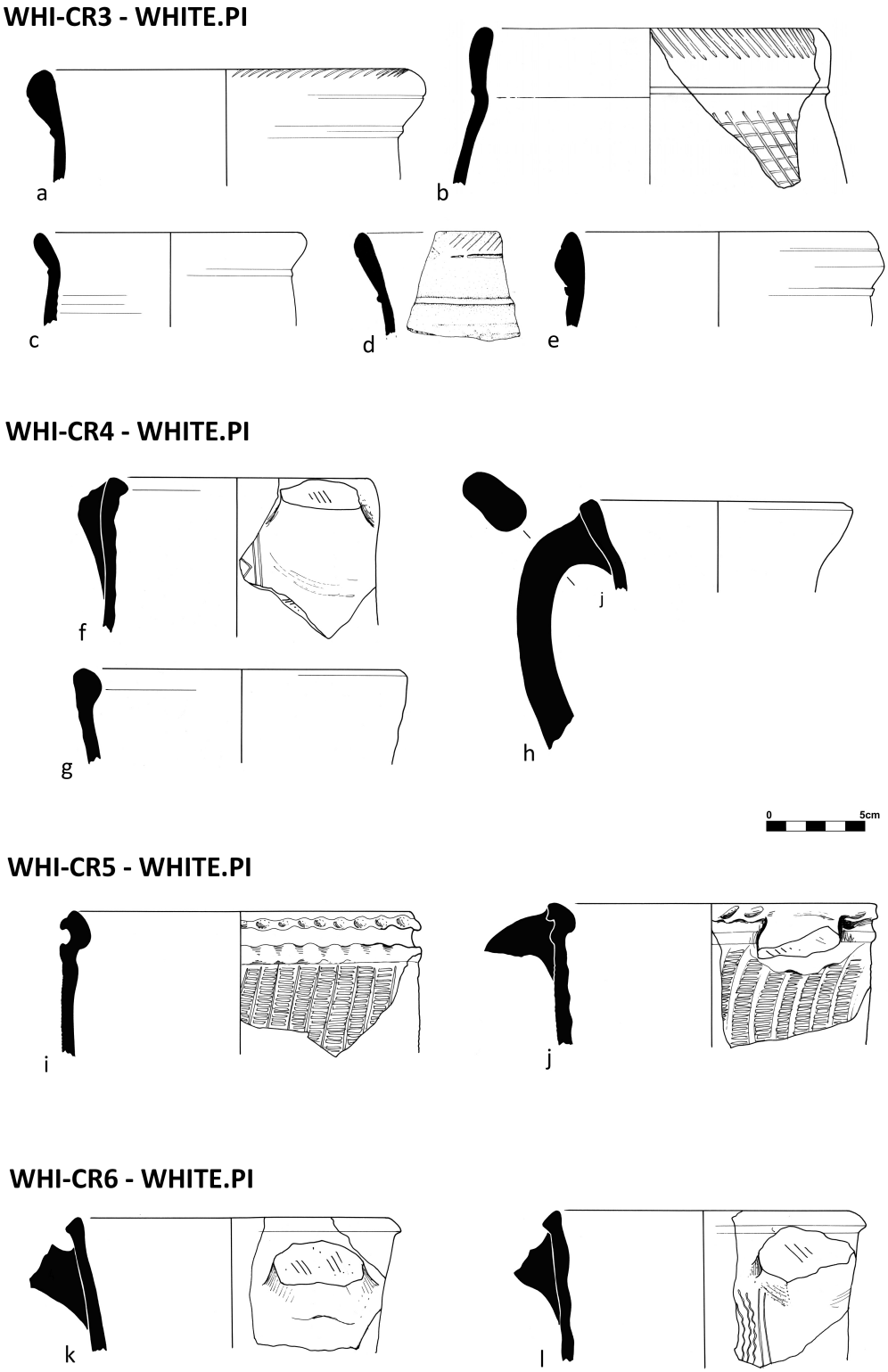


Figure 154 *a-e = WHI-CR3; f-h = WHI-CR4; i-j = WHI-CR5; k-l = WHI-CR6*

Figure 154						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	WHI-CR3	WHITE.PI	Siraf		2007.6001,1589	1:3
b	WHI-CR3	WHITE.PI	Unguja Ukuu		UU14/1423N	1:3
c	WHI-CR3	WHITE.PI	Siraf		2007.6001,8143	1:3
d	WHI-CR3	WHITE.PI	Manda	Chittick, 1984: fig. 51: g		1:3
e	WHI-CR3	WHITE.PI	Siraf		2007.6001,7036	1:3
f	WHI-CR4	WHITE.PI	Siraf		2007.6001,7910	1:3
g	WHI-CR4	WHITE.PI	Siraf		2007.6001,4791	1:3
h	WHI-CR4	WHITE.PI	Siraf		2007.6001,4643	1:3
i	WHI-CR5	WHITE.PI	Siraf		2007.6001,507	1:3
j	WHI-CR5	WHITE.PI	Siraf		2007.6001,7775	1:3
k	WHI-CR6	WHITE.PI	Siraf		2007.6001,7522	1:3
l	WHI-CR6	WHITE.PI	Siraf		2007.6001,552	1:3

WHI-F1 - WHITE.PI

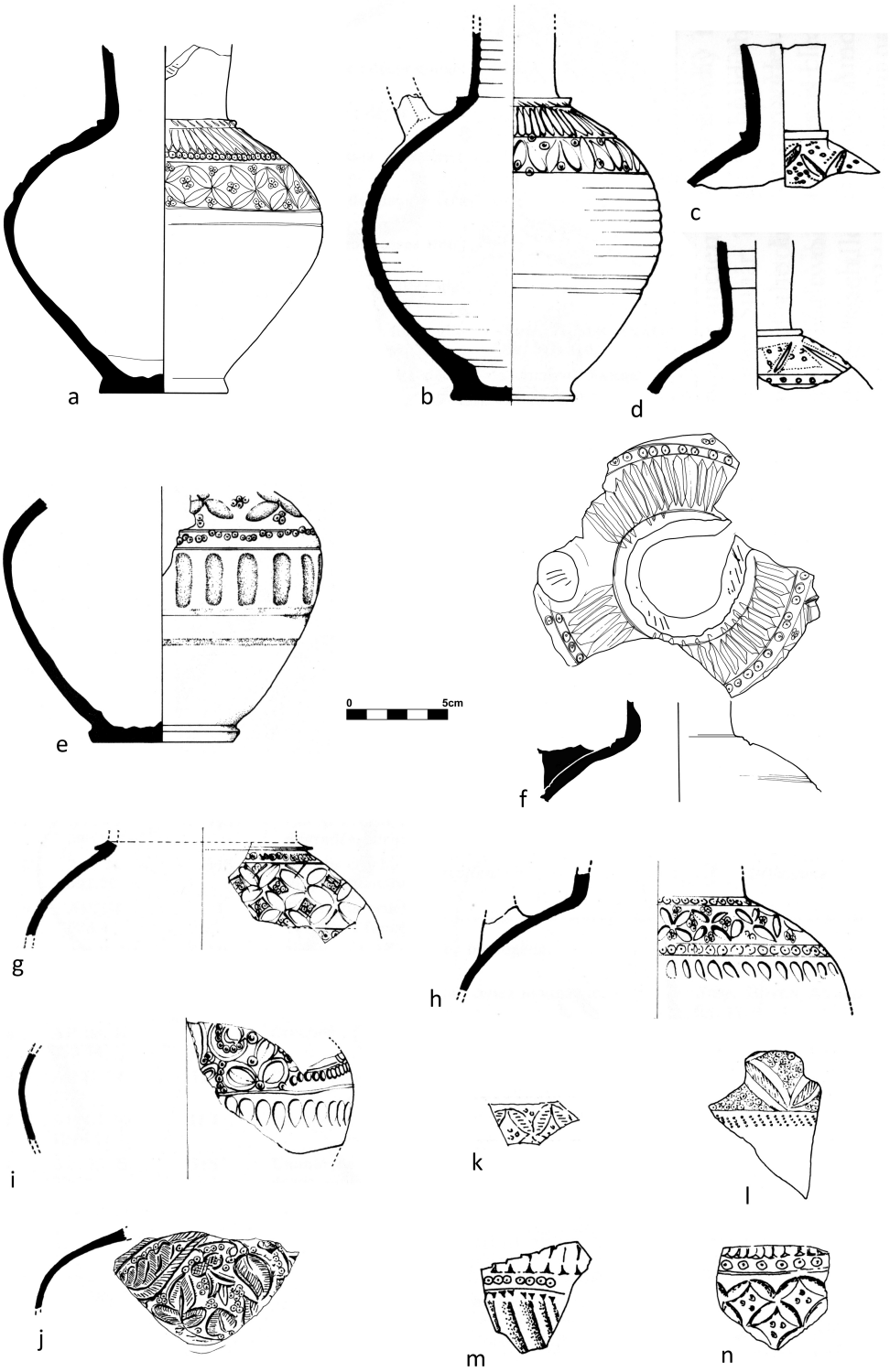
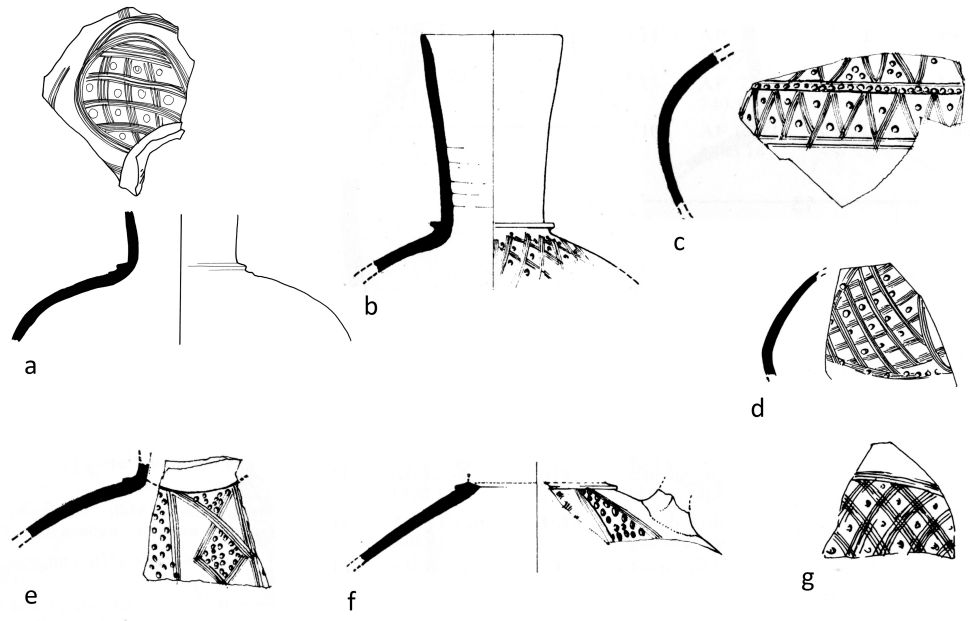


Figure 155 *a-n = WHI-F1*

Figure 155						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	WHI-F1	WHITE.PI	Siraf		2007.6001,2795	1:3
b	WHI-F1	WHITE.PI	Susa	Kervran, 1977: fig. 27: 2	AP.Isl73 1146.1	1:3
c	WHI-F1	WHITE.PI	Sohar	Kervran, 2004: fig. 21: 1	631.2	1:3
d	WHI-F1	WHITE.PI	Sohar	Kervran, 2004: fig. 21: 2	634.3	1:3
e	WHI-F1	WHITE.PI	Ana	Northedge, *et al*., 1988: fig. 40: 4	DP530	1:3
f	WHI-F1	WHITE.PI	Siraf		2007.6001,1469	1:3
g	WHI-F1	WHITE.PI	Susa	Kervran, 1977: fig. 27: 5	AP.Isl.73 908.1	1:3
h	WHI-F1	WHITE.PI	Susa	Kervran, 1977: fig. 28: 5	AP.Isl.73 1246.11	1:3
i	WHI-F1	WHITE.PI	Susa	Kervran, 1977: fig. 27: 4	AP.Isl.73 1146.3	1:3
j	WHI-F1	WHITE.PI	Sohar	Kervran, 2004: fig. 25: 4	1538.3	1:3
k	WHI-F1	WHITE.PI	Sohar	Kervran, 2004: fig. 23: 5	603	1:3
l	WHI-F1	WHITE.PI	Ana	Northedge, *et al*., 1988: fig. 38: 21	DP45	1:3
m	WHI-F1	WHITE.PI	Sohar	Kervran, 2004: fig. 34: 3	2205:02:00	1:3
n	WHI-F1	WHITE.PI	Sohar	Kervran, 2004: fig. 22: 9	616.4	1:3

WHI-F2 - WHITE.PI



WHI-H1 - WHITE.PI

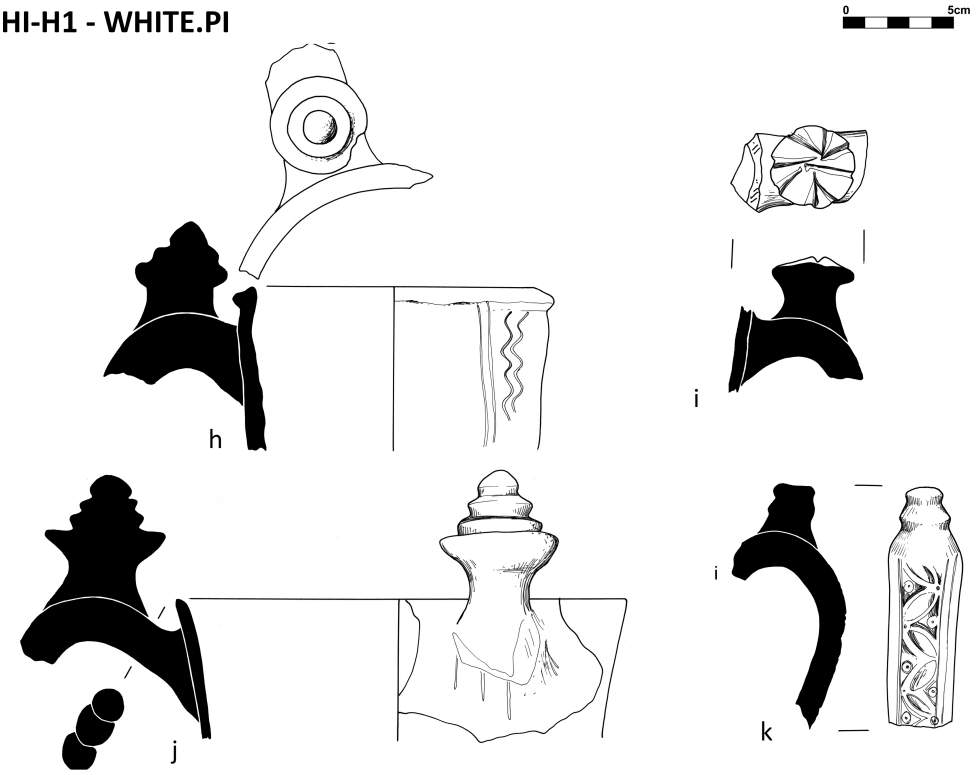


Figure 156 *a-g = WHI-F2; h-k = WHI-H1*

Figure 156						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	WHI-F2	WHITE.PI	Siraf		2007.6001,2307	1:3
b	WHI-F2	WHITE.PI	Susa	Kervran, 1977: fig. 28: 15	AP.75 740.1	1:3
c	WHI-F2	WHITE.PI	Susa	Kervran, 1977: fig. 27: 11	AP.Isl.73 1146.4	1:3
d	WHI-F2	WHITE.PI	Sohar	Kervran, 2004: fig. 21: 12	634	1:3
e	WHI-F2	WHITE.PI	Susa	Kervran, 1977: fig. 27: 3	AP.E.74 1643.2	1:3
f	WHI-F2	WHITE.PI	Susa	Kervran, 1977: fig. 27: 6	AP.Isl.73 908.3	1:3
g	WHI-F2	WHITE.PI	Sohar	Kervran, 2004: fig. 22: 10	616.5	1:3
h	WHI-H1	WHITE.PI	Siraf		2007.6001,7160	1:3
i	WHI-H1	WHITE.PI	Siraf		2007.6001,3310	1:3
j	WHI-H1	WHITE.PI	Siraf		2007.6001,8266	1:3
k	WHI-H1	WHITE.PI	Siraf		2007.6001,8175	1:3

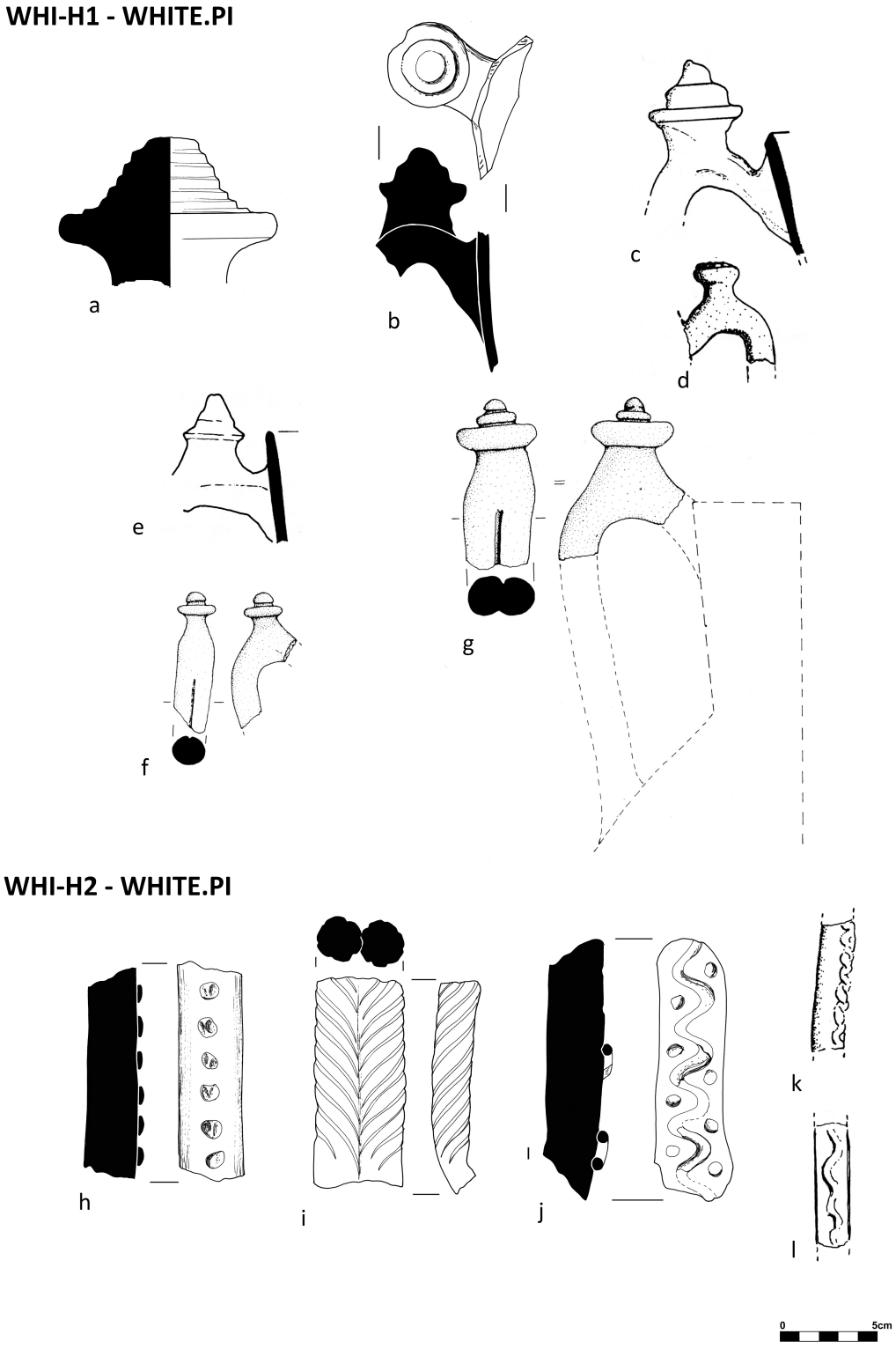


Figure 157 *a-g = WHI-H1; h-l = WHI-H2*

Figure 157						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	WHI-H1	WHITE.PI	Siraf		2007.6001,6294	1:3
b	WHI-H1	WHITE.PI	Siraf		2007.6001,7597	1:3
c	WHI-H1	WHITE.PI	Sohar	Kervran, 2004: 34: 4	2201.2	1:3
d	WHI-H1	WHITE.PI	Sohar	Kervran, 2004: 34: 5	2208.1	1:3
e	WHI-H1	WHITE.PI	Sohar	Kervran, 1977: 26: 9	AP.Isl.74 1425.2	1:3
f	WHI-H1	WHITE.PI	Manda	Chittick, 1984: fig. 51: c		1:3
g	WHI-H1	WHITE.PI	Manda	Chittick, 1984: fig. 51: a		1:3
h	WHI-H2	WHITE.PI	Siraf		2007.6001,4548	1:3
i	WHI-H2	WHITE.PI	Siraf		2007.6001,7598	1:3
j	WHI-H2	WHITE.PI	Siraf		2007.6001,7846	1:3
k	WHI-H2	WHITE.PI	Sohar	Kervran, 2004: fig. 21: 10	634	1:3
l	WHI-H2	WHITE.PI	Sohar	Kervran, 2004: fig. 23: 13	603	1:3

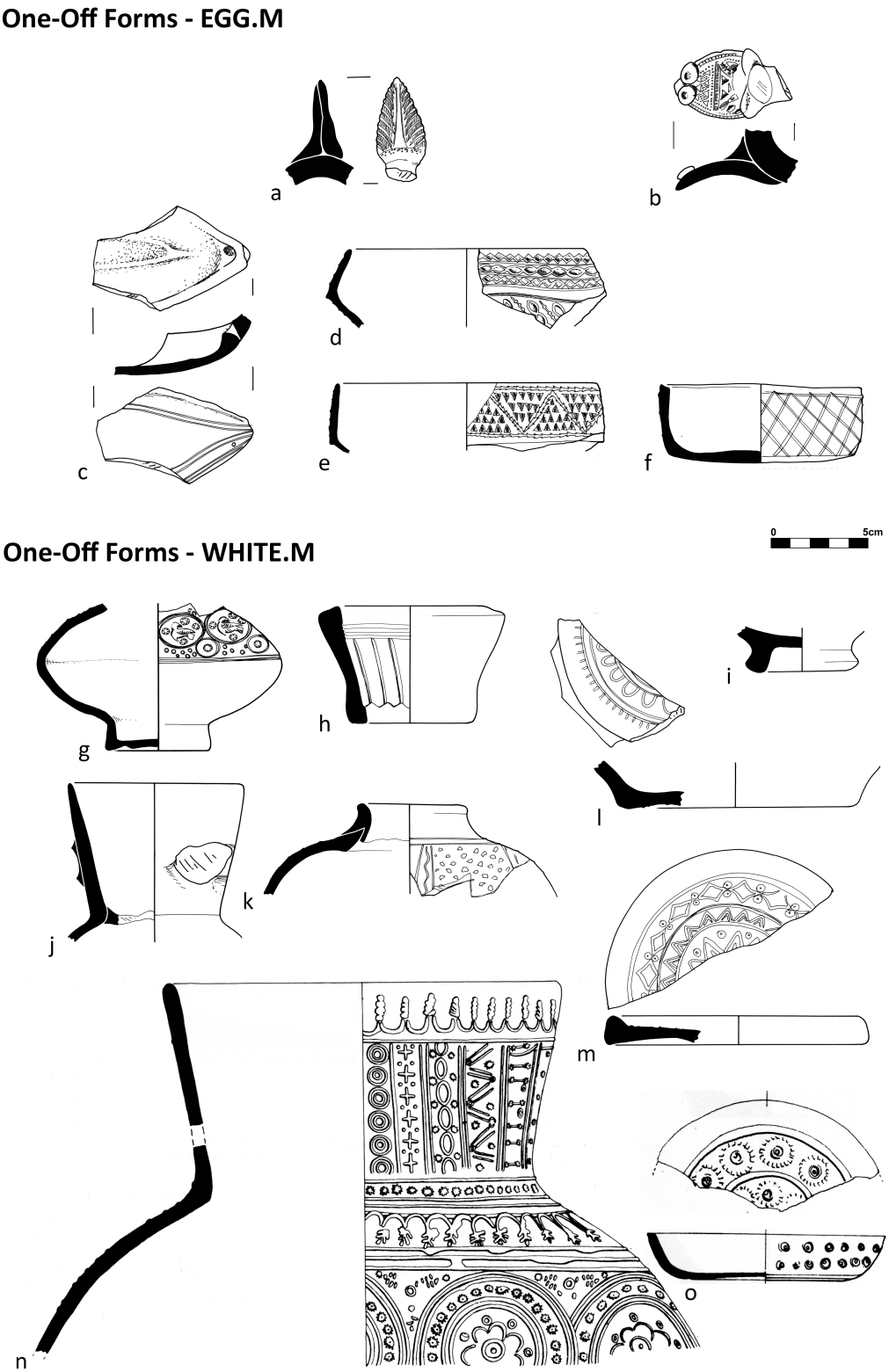


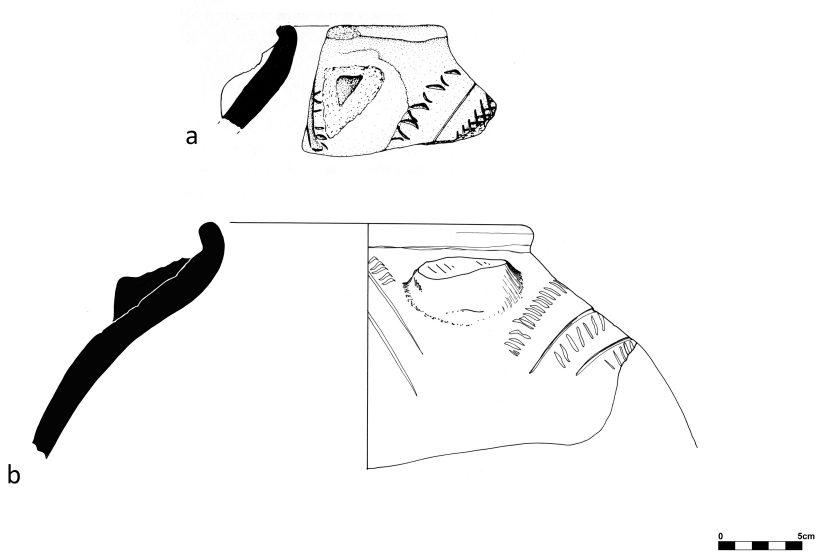
Figure 158 *a-f = EGG.M (one-off forms); g-n = WHITE.M (one-off forms)*

Figure 158						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	One-off	EGG.M	Siraf		2007.6001,3682	1:3
b	One-off	EGG.M	Siraf		2007.6001,2650	1:3
c	One-off	EGG.M	Siraf		2007.6001,1323	1:3
d	One-off	EGG.M	Siraf		2007.6001,2638	1:3
e	One-off	EGG.M	Siraf		2007.6001,2657	1:3
f	One-off	EGG.M	Siraf		2007.6001,7221	1:3
g	One-off	WHITE.M	Siraf		2007.6001,2722	1:3
h	One-off	WHITE.M	Siraf		2007.6001,5318	1:3
i	One-off	WHITE.M	Siraf		2007.6001,2194	1:3
j	One-off	WHITE.M	Siraf		2007.6001,2600	1:3
k	One-off	WHITE.M	Siraf		2007.6001,2060	1:3
l	One-off	WHITE.M	Siraf		2007.6001,887	1:3
m	One-off	WHITE.M	Siraf		2007.6001,8044	1:3
n	One-off	WHITE.M	Manda	Chittick, 1984: fig. 51: d		1:3
o	One-off	WHITE.M	Susa	Kervran, 1977: fig. 28: 16	AP.E.74 1363.16	1:3

BUF – Buff Wares

Type	Form	Class(es)	Illustration	Concordance	Description
BUF-CR1	Jar	BUFF.I	Fig. 159: a-b		Large, thick-walled vessel with a simple, gently rolled, rounded rim
BUF-F1	Jar	BUFF.I	Figs. 159: c-g; 160		Incised decorated
BUF-F2	Jar	BUFF.S	Fig. 161: a-d		Stamp marked designs
BUF-F3	Jar	STAMP	Fig. 165: h-j		Circular segmented stamp mark
BUF-F4	Jar	HONEY	Fig. 165: k		Finger impressed 'honeycomb' pattern
BUF-F5	Jar	RUST	Fig. 165: l-m		Elongated, broad, comb incised loops
BUF-OR1	Bowl	BUFF.P	Fig. 161: e-i		Identical to TUR-OR12, but unglazed

BUF-CR1 - BUFF.I



BUF-F1 - BUFF.I

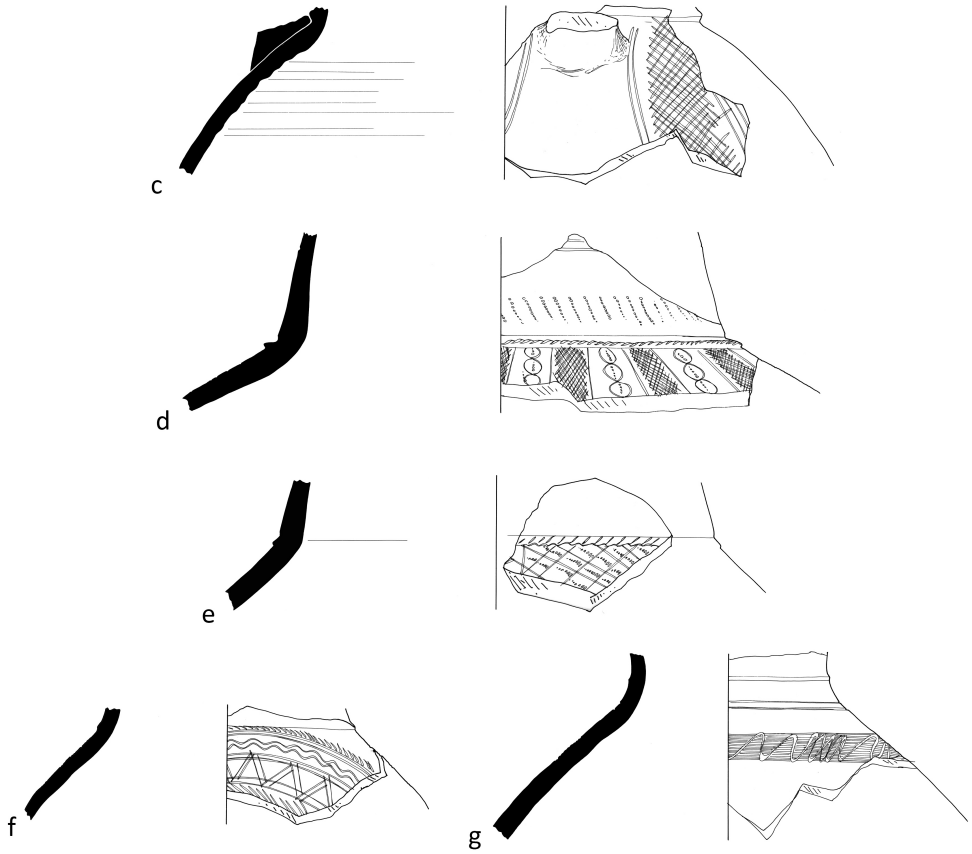


Figure 159 *a-b = BUF-CR1; c-g = BUF-F1*

Figure 159						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	BUF-CR1	BUFF.I	Manda	Chittick, 1984: fig. 50: d		1:4
b	BUF-CR1	BUFF.I	Siraf		2007.6001,6321	1:4
c	BUF-F1	BUFF.I	Siraf		2007.6001,497	1:4
d	BUF-F1	BUFF.I	Siraf		2007.6001,1633	1:4
e	BUF-F1	BUFF.I	Siraf		2007.6001,1251	1:4
f	BUF-F1	BUFF.I	Siraf		2007.6001,187	1:4
g	BUF-F1	BUFF.I	Siraf		2007.6001,604	1:4

BUF-F1 - BUFF.I

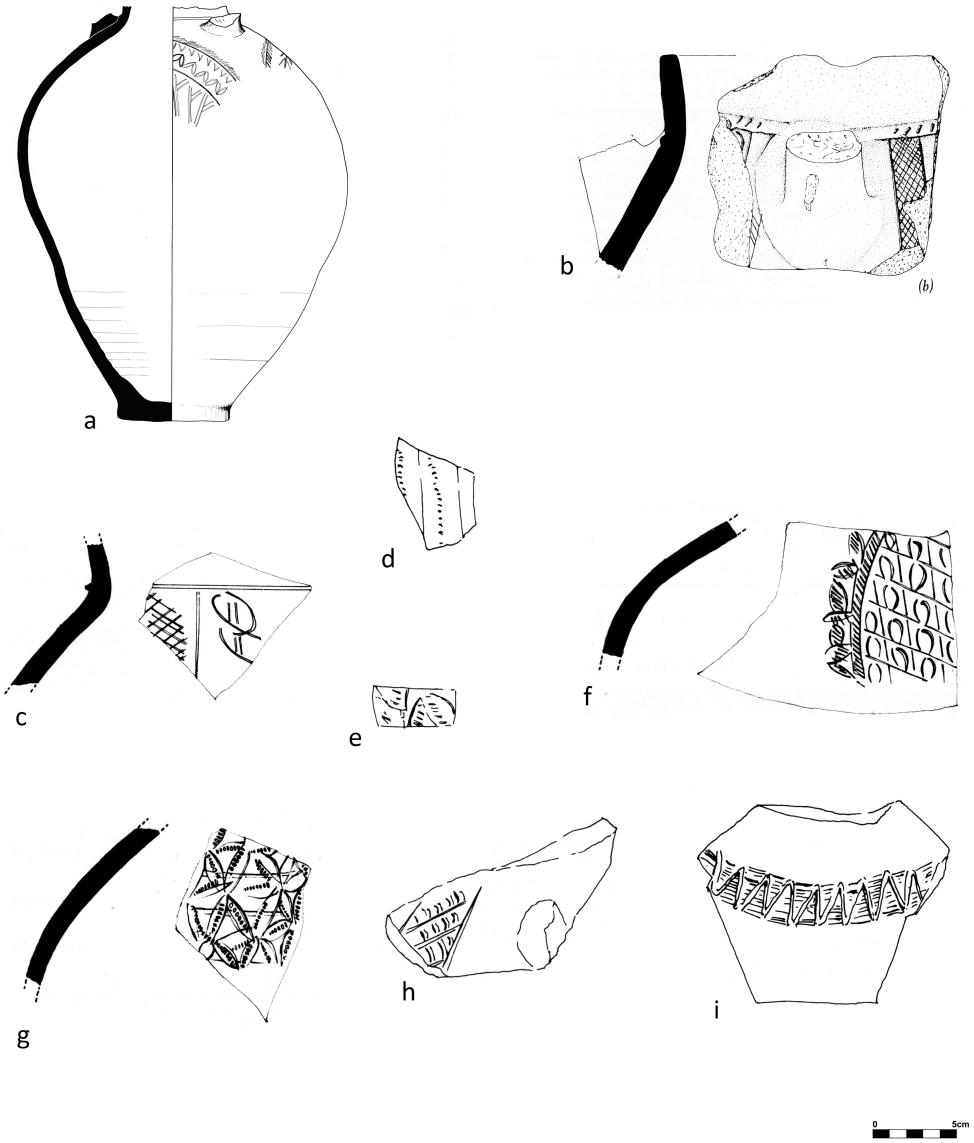
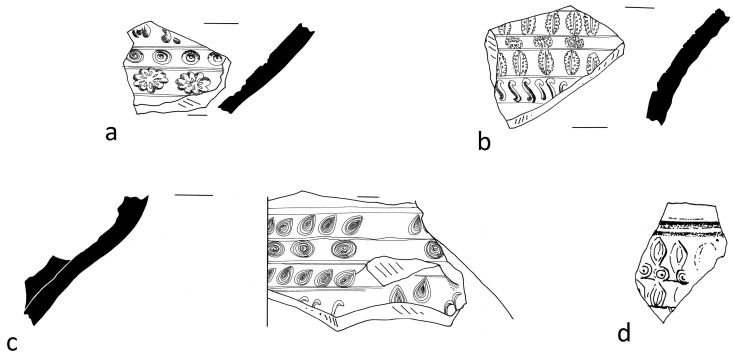


Figure 160 *a-i = BUF-F1*

Figure 160						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	BUF-F1	BUFF.I	Siraf		2007.6001,1748	1:10
b	BUF-F1	BUFF.I	Manda	Chittick, 1984: fig. 50: b		1:4
c	BUF-F1	BUFF.I	Susa	Kervran, 1977: fig. 22: 5	AP.Isl.73 901.7	1:4
d	BUF-F1	BUFF.I	Sohar	Kervran, 2004: fig. 25: 5	1538.5-6	1:4
e	BUF-F1	BUFF.I	Sohar	Kervran, 2004: fig. 25: 6	1538.9	1:4
f	BUF-F1	BUFF.I	Susa	Kervran, 1977: fig. 22: 3	AP.Isl.73 1247.2	1:4
g	BUF-F1	BUFF.I	Susa	Kervran, 1977: fig. 22: 4	AP.Isl.73 1247.1	1:4
h	BUF-F1	BUFF.I	Sohar	Kervran, 2004: fig. 23: 4	603	1:4
i	BUF-F1	BUFF.I	Sohar	Kervran, 2004: fig. 26: 12	1522	1:4

BUF-F2 - BUFF.S



BUF-OR1 - BUFF.P

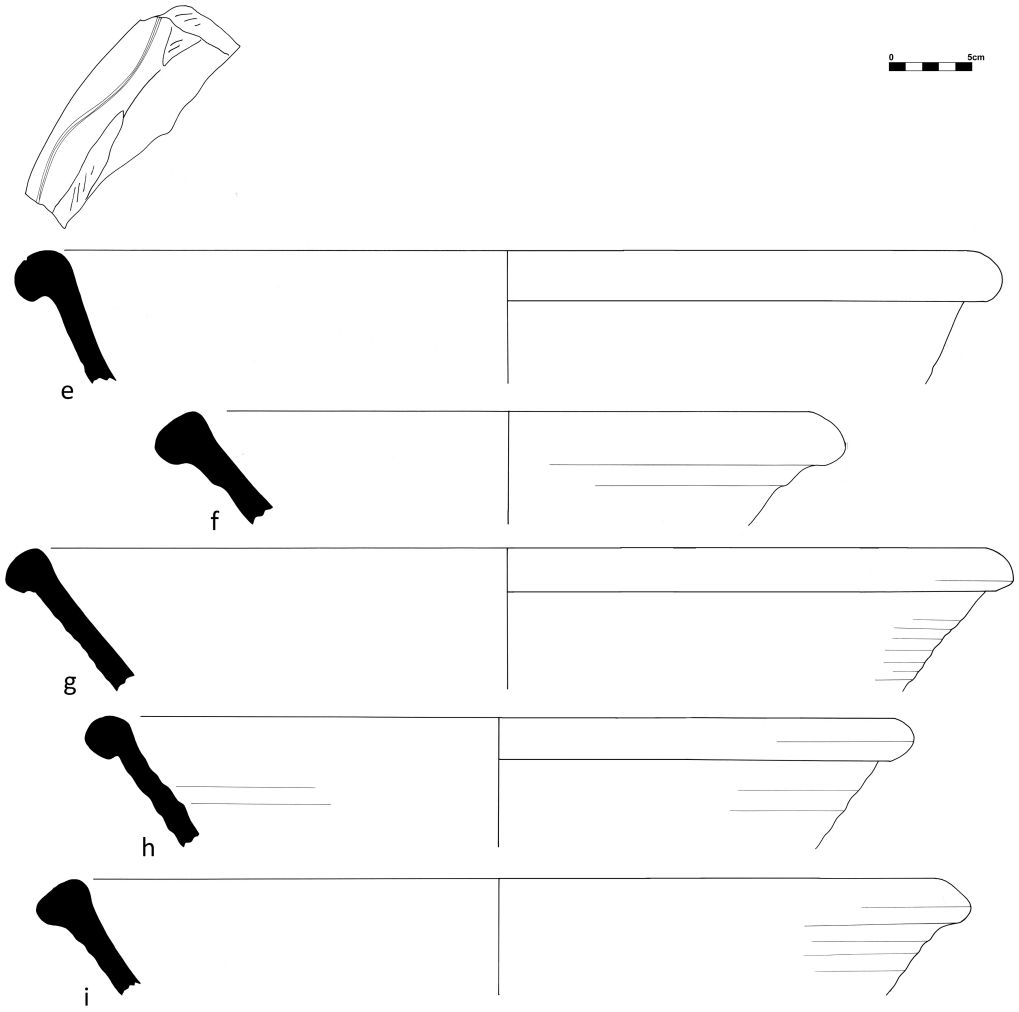


Figure 161 *a-d = BUF-F2; e-i = BUF-OR1*

Figure 161						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	BUF-F2	BUFF.S	Siraf		2007.6001,8380	1:4
b	BUF-F2	BUFF.S	Siraf		2007.6001,6146	1:4
c	BUF-F2	BUFF.S	Siraf		2007.6001,7770	1:4
d	BUF-F2	BUFF.S	Sohar	Kervran, 2004: fig. 26: 11	1522	1:4
e	BUF-OR1	BUFF.P	Siraf		2007.6001,3677	1:4
f	BUF-OR1	BUFF.P	Siraf		2007.6001,1634	1:4
g	BUF-OR1	BUFF.P	Siraf		2007.6001,1003	1:4
h	BUF-OR1	BUFF.P	Siraf		2007.6001,230	1:4
i	BUF-OR1	BUFF.P	Siraf		2007.6001,1513	1:4

TOR – Torpedo Jars

Type	Form	Class(es)	Illustration	Concordance	Description
TOR-CR1	Amphora	TORP-S	Fig. 162	Kennet, 2004: Type 74; Priestman, 2005a: TOR.1-4: 01	Flared rim with a slightly inverted lip
TOR-CR2	Amphora	TORP-C	Fig. 163		Heavy, closed-mouthed rim, with an internally projecting lip
TOR-CR3	Amphora	TORP-C	Fig. 164: a-c		Heavy, closed-mouthed rim, with a slight thickenning of the lip
TOR-B1	Amphora	TORP-S	Fig. 165: a-d		Pointed base, in contrast to B3 it remains hollow towards the foot
TOR-B2	Amphora	TORP-S	Fig. 165: e-g		Short pointed base connected with wide body form
TOR-B3	Amphora	TORP-C	Fig. 164: d-h		Solid pointed base connected with wide-waisted, body form

TOR-CR1 (Type 74) - TORP-S

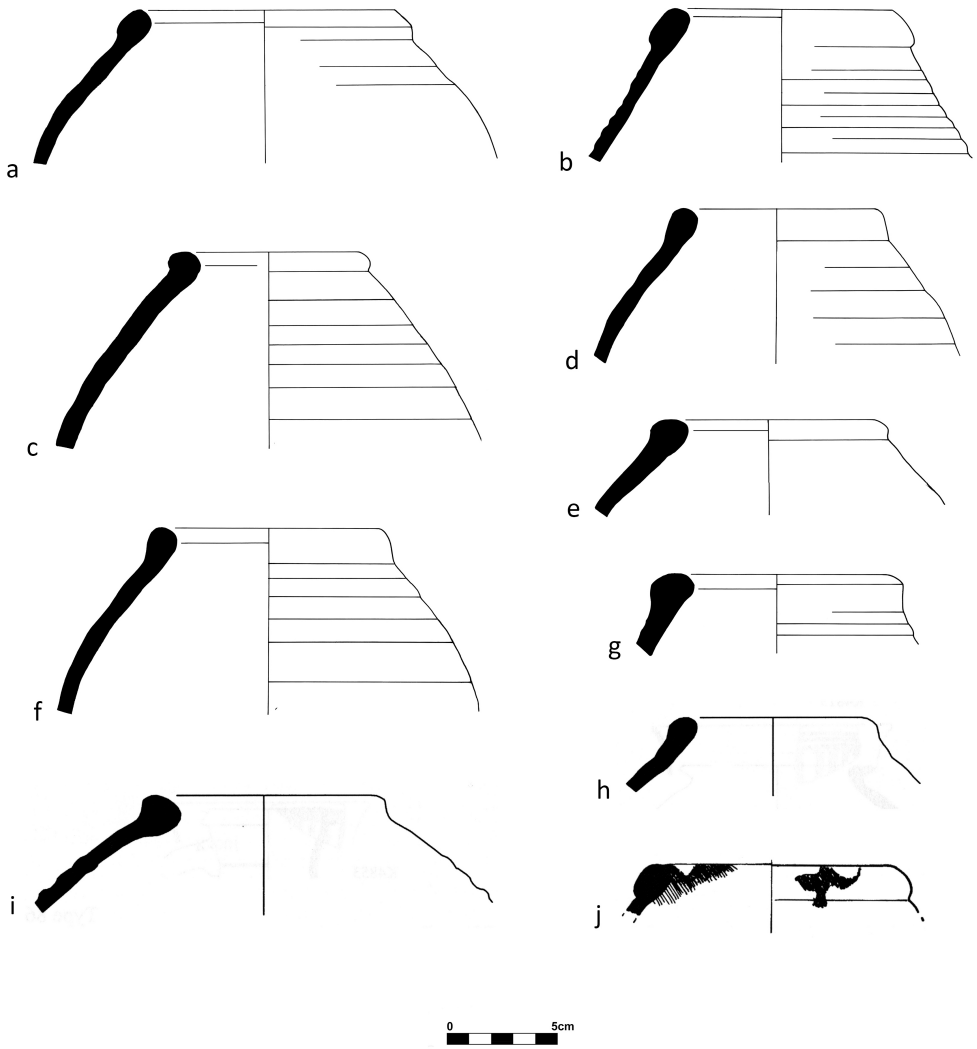


Figure 162 *a-j = TOR-CR1 (Type 74)*

Figure 162						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TOR-CR1	TORP-S	Williamson/ K102B		15268	1:3
b	TOR-CR1	TORP-S	Williamson/ H94		2862	1:3
c	TOR-CR1	TORP-S	Williamson/ H65		15267	1:3
d	TOR-CR1	TORP-S	Williamson/ H94		2861	1:3
e	TOR-CR1	TORP-S	Williamson/ K17		3890	1:3
f	TOR-CR1	TORP-S	Williamson/ H94		2954	1:3
g	TOR-CR1	TORP-S	Williamson/ H35		2024	1:3
h	TOR-CR1	TORP-S	Kush	Kennet: 2004: fig. 36	K3551	1:3
i	TOR-CR1	TORP-S	Kush	Kennet: 2004: fig. 36	K3553	1:3
j	TOR-CR1	TORP-S	Sohar Fig.11	Kervran, 2004: fig. 11: 6	670.1	1:3

TOR-CR2 - TORP-C

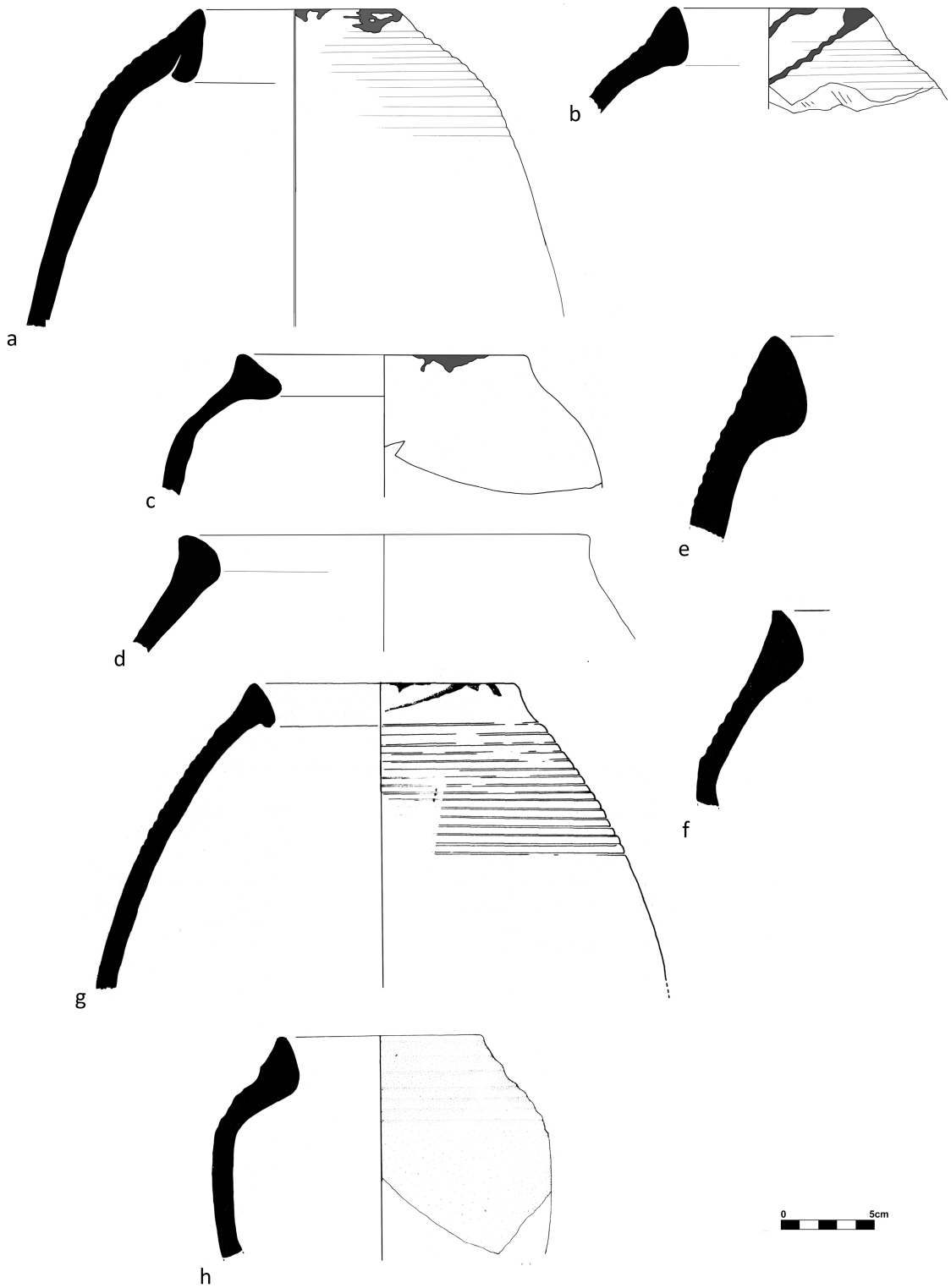
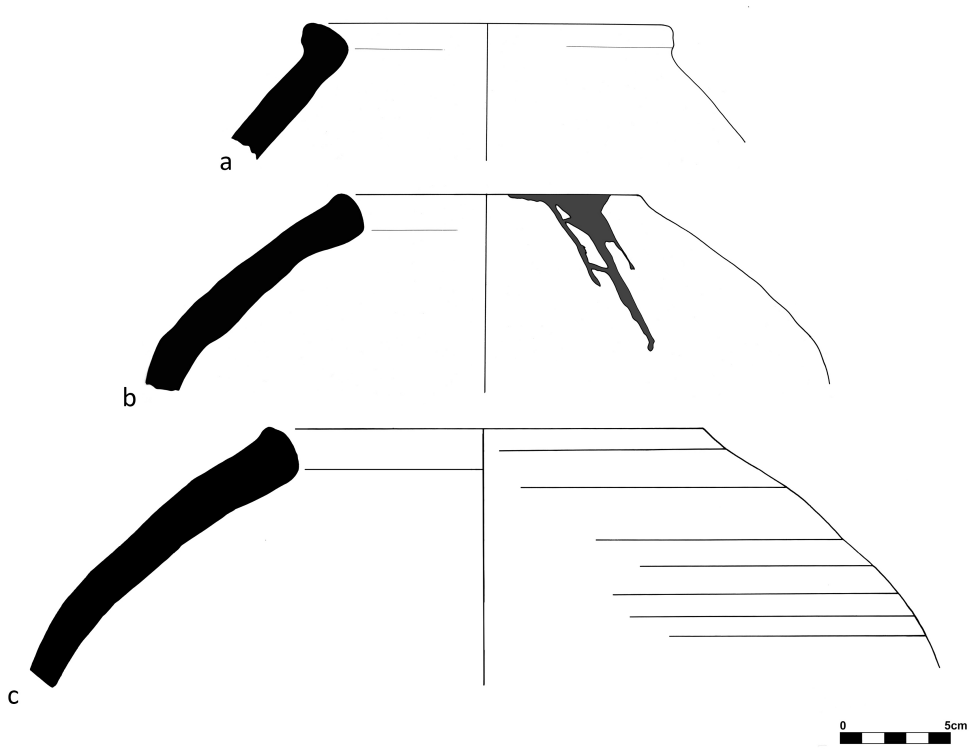


Figure 163 *a-h = TOR-CR2*

Figure 163						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TOR-CR2	TORP-C	Siraf		2007.6001,7702	1:3
b	TOR-CR2	TORP-C	Siraf		2007.6001,1517	1:3
c	TOR-CR2	TORP-C	Siraf		2007.6001,1976	1:3
d	TOR-CR2	TORP-C	Siraf		2007.6001,1543	1:3
e	TOR-CR2	TORP-C	Manda	Chittick, 1984: fig. 43: c		1:3
f	TOR-CR2	TORP-C	Manda	Chittick, 1984: fig. 43: b		1:3
g	TOR-CR2	TORP-C	Sohar	Kervran, 2004: fig. 22 bis: 3	619.1	1:3
h	TOR-CR2	TORP-C	Manda	Chittick, 1984: fig. 43: a		1:3

TOR-CR3 - TORP-C



TOR-B3 - TORP-C

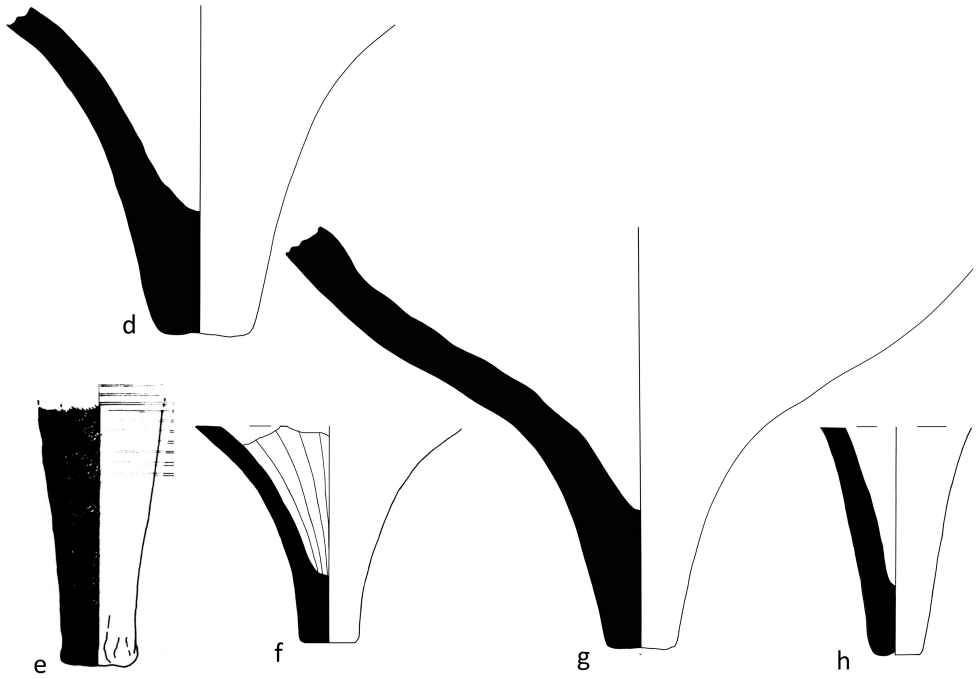


Figure 164 *a-c = TOR-CR3; d-h = TOR-B3*

Figure 164						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TOR-CR3	TORP-C	Siraf		2007.6001,1482	1:3
b	TOR-CR3	TORP-C	Siraf		2007.6001,9652	1:3
c	TOR-CR3	TORP-C	Williamson/ K143		12912	1:3
d	TOR-B3	TORP-C	Siraf		2007.6001,1547	1:3
e	TOR-B3	TORP-C	Sohar	Kervran, 2004: fig. 22 bis: 3	619.1	1:3
f	TOR-B3	TORP-C	Williamson/H65		1828	1:3
g	TOR-B3	TORP-C	Siraf		2007.6001,9653	1:3
h	TOR-B3	TORP-C	Williamson/ H94		1823	1:3

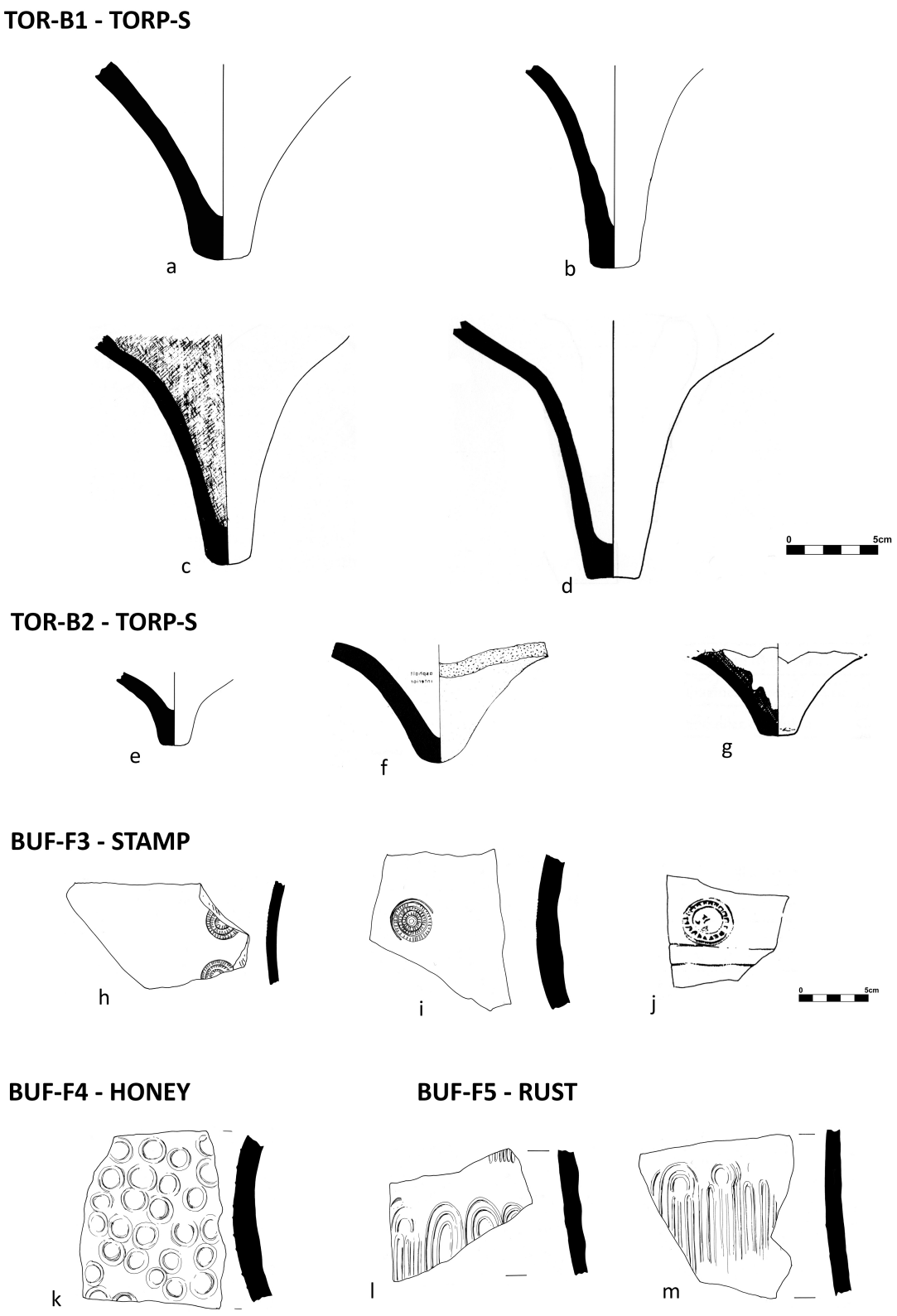


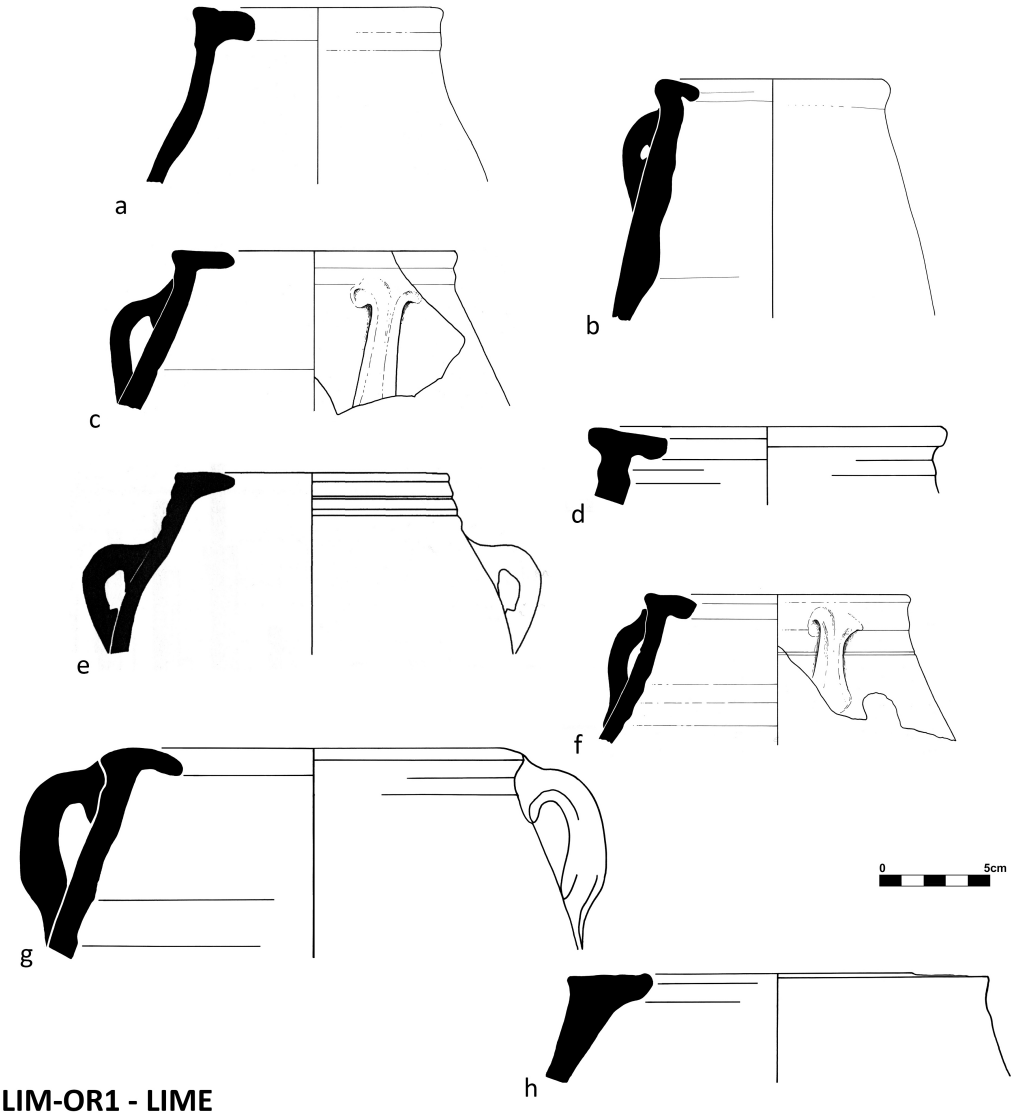
Figure 165 *a-d = TOR-B1; e-g = TOR-B2; h-j = BUF-F3; k = BUF-F4; l-m = BUF-F5*

Figure 165						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	TOR-B1	TORP-S	Siraf		2007.6001,6817	1:3
b	TOR-B1	TORP-S	Siraf		2007.6001,1621	1:3
c	TOR-B1	TORP-S	Sohar	Kervran, 2004: fig. 24: 2	1534.3	1:3
d	TOR-B1	TORP-S	Kush	Kennet: 2004: 36		1:3
e	TOR-B2	TORP-S	Siraf		2007.6001,3672	1:3
f	TOR-B2	TORP-S	Manda	Chittick, 1984: fig. 45		1:3
g	TOR-B2	TORP-S	Sohar	Kervran, 2004: fig. 10: 15	690.5	1:3
h	BUF-F3	STAMP	Siraf		2007.6001,3260	1:4
i	BUF-F3	STAMP	Siraf		2007.6001,2954	1:4
j	BUF-F3	STAMP	Sohar	Kervran, 2004: fig. 18, Gr 1: 4	1540.6	1:4
k	BUF-F4	HONEY	Siraf		2007.6001,9299	1:4
l	BUF-F5	RUST	Siraf		2007.6001,3172	1:4
m	BUF-F5	RUST	Siraf		2007.6001,8448	1:4

LIM – Lime-Tempered Ware

Type	Form	Class(es)	Illustration	Concordance	Description
LIM-CR1	Storage Jar	LIME	Fig. 166: a-h	Kennet, 2004: Type 105; Priestman, 2005a: LIM: 01	Large, thick-walled, hole-mouthed storage jar, with an inverted flange rim
LIM-OR1	Bowl	LIME	Fig. 166: 1-j		Large thick-walled bowl with an internal lip

LIM-CR1 - LIME



LIM-OR1 - LIME

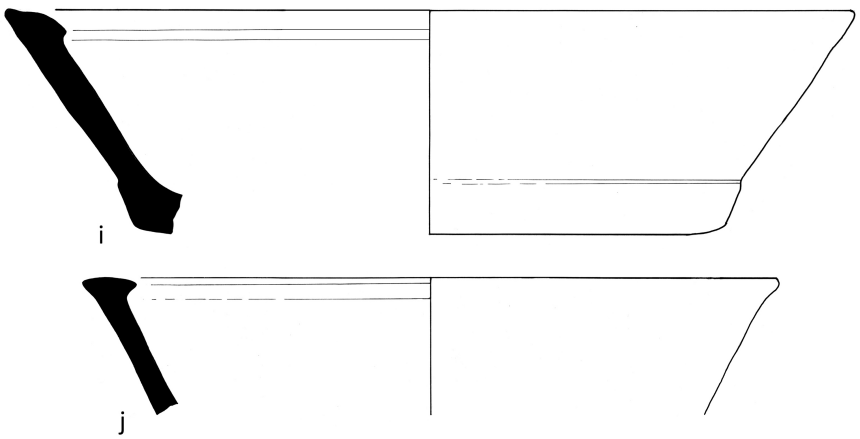


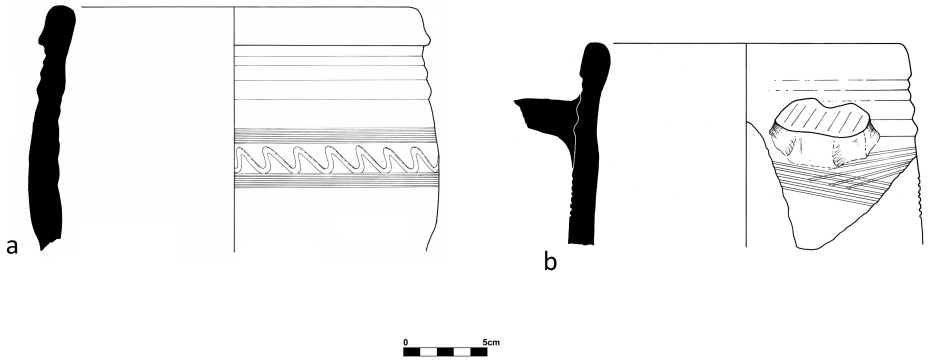
Figure 166 *d-k = LIM-CR1; l-m = LIM-OR1*

Figure 166						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	LIM-CR1	LIME	Siraf		2007.6001,5700	1:3
b	LIM-CR1	LIME	Siraf		2007.6001,1869	1:3
c	LIM-CR1	LIME	Siraf		2007.6001,6124	1:3
d	LIM-CR1	LIME	Williamson/ H19		2285	1:3
e	LIM-CR1	LIME	Kush	Kennet: 2004: fig. 31		1:3
f	LIM-CR1	LIME	Siraf		2007.6001,1842	1:3
g	LIM-CR1	LIME	Williamson/ K22B		3955	1:3
h	LIM-CR1	LIME	Williamson/ H#		2000	1:3
i	LIM-OR1	LIME	Siraf		2007.6001,5706	1:3
j	LIM-OR1	LIME	Siraf		2007.6001,6133	1:3

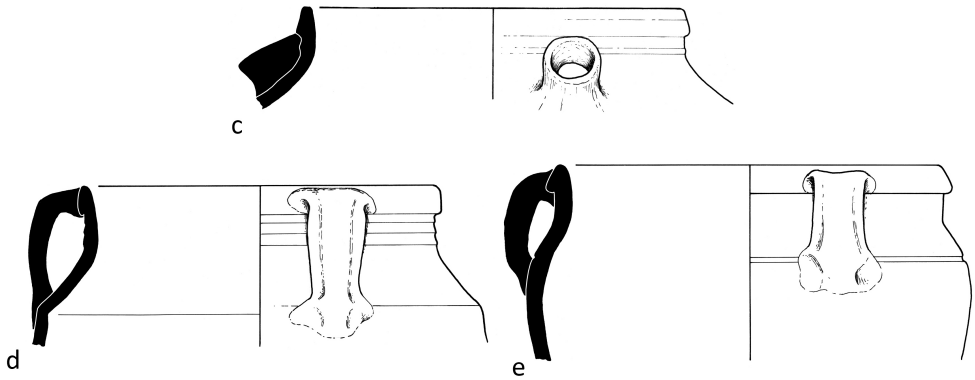
PCW – Plain Coarse Wares

Type	Form	Class(es)	Illustration	Concordance	Description
PCW-CR1	Storage vessel	FIBIC	Fig. 167: a-b		Thick-walled vessel with a folded and flattened rim, and a rounded lip
PCW-CR2	Jar	REGTEC	Fig. 167: c-e		Folded and flattened rim with a defined lower lip. Wide strap handle attached to the rim and shoulder
PCW-CR3	Jar	REGTEC	Fig. 167: f-g		Everted rim, with a complex double stemmed handle connected with cross spokes, and a turban topped thumb-stop
PCW-CR4	Jar	HARC	Fig. 168: a-d	Priestman, 2005a: FIN: 02 (some)	Rolled, thickened rim, with a shallow grooved recess below the lip
PCW-CR5	Jar	HARC	Fig. 168: e-m	Priestman, 2005a: FIN: 01 (some)	Partially offset rim with a domed or rounded outer face
PCW-CR6	Jar	HAGRIT	Fig. 169: a-c		Clubbed rim with grooves around the exterior and a recess around the inner lip
PCW-H1	Vessel	REGTEC	Not illustrated		Looped attachment for suspension?

PCW-CR1 - FIBIC



PCW-CR2 - REGTEC



PCW-CR3 - REGTEC

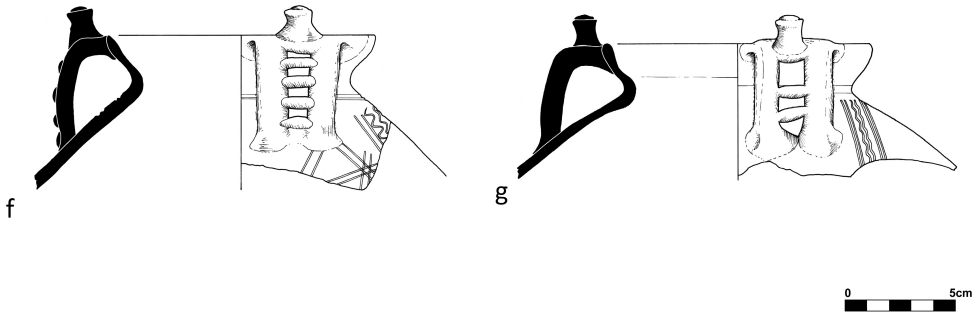


Figure 167 *a-b = PCW-CR1; c-e = PCW-CR2; f-g = PCW-CR3*

Figure 167						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	PCW-CR1	FIBIC	Siraf		2007.6001,6320	1:4
b	PCW-CR1	FIBIC	Siraf		2007.6001,7771	1:4
c	PCW-CR3	REGTEC	Siraf		2007.6001,4784	1:3
d	PCW-CR3	REGTEC	Siraf		2007.6001,4770	1:3
e	PCW-CR3	REGTEC	Siraf		2007.6001,4647	1:3
f	PCW-CR4	REGTEC	Siraf		2007.6001,3787	1:3
g	PCW-CR4	REGTEC	Siraf		2007.6001,4595	1:3

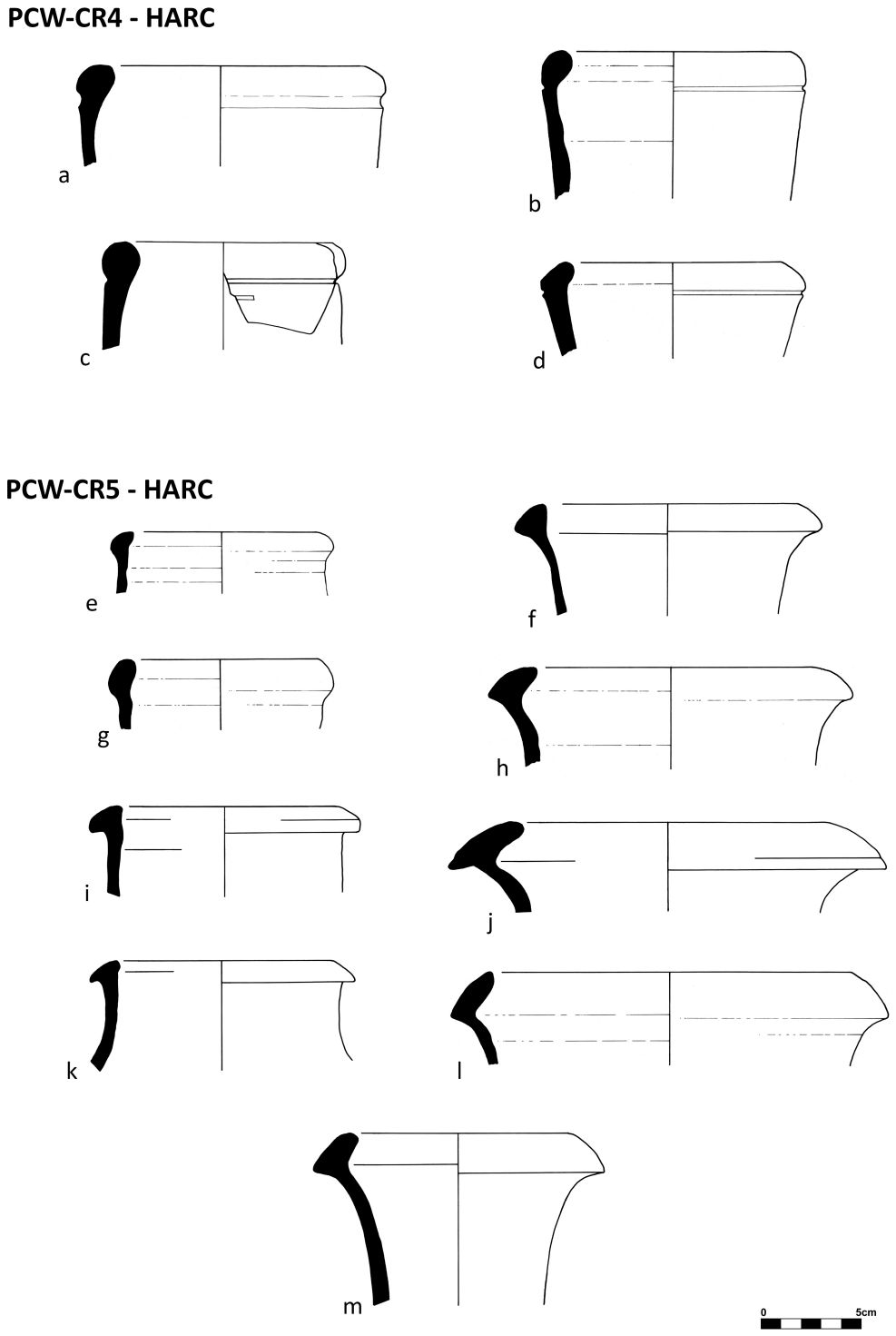
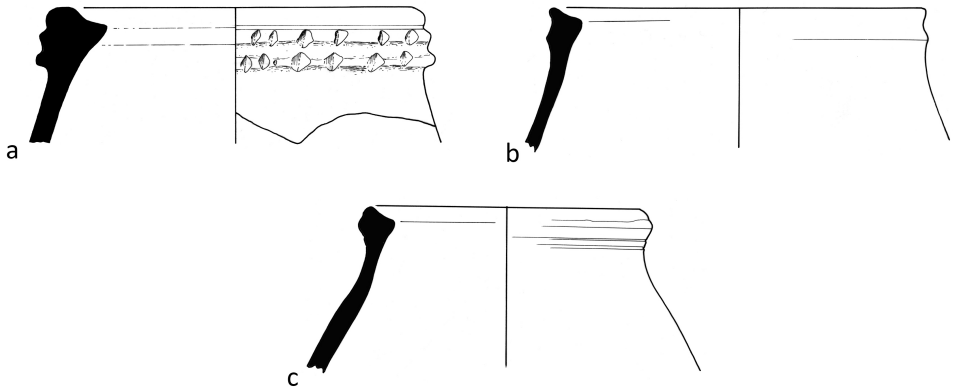


Figure 168 *a-d = PCW-CR4; e-m = PCW-CR5*

Figure 168						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	PCW-CR4	HARC	Siraf		2007.6001,7612	1:3
b	PCW-CR4	HARC	Siraf		2007.6001,6379	1:3
c	PCW-CR4	HARC	Williamson/ H41		2357	1:3
d	PCW-CR4	HARC	Siraf		2007.6001,7991	1:3
e	PCW-CR5	HARC	Siraf		2007.6001,5494	1:3
f	PCW-CR5	HARC	Williamson/ K131M		3647	1:3
g	PCW-CR5	HARC	Siraf		2007.6001,6102	1:3
h	PCW-CR5	HARC	Siraf		2007.6001,6184	1:3
i	PCW-CR5	HARC	Williamson/ K103A		4285	1:3
j	PCW-CR5	HARC	Williamson		13589	1:3
k	PCW-CR5	HARC	Williamson/ K124		14539	1:3
l	PCW-CR5	HARC	Siraf		2007.6001,8801	1:3
m	PCW-CR5	HARC	Williamson/ K131		3648	1:3

PCW-CR6 - HAGRIT



CHM-CR1 - HMPW-2

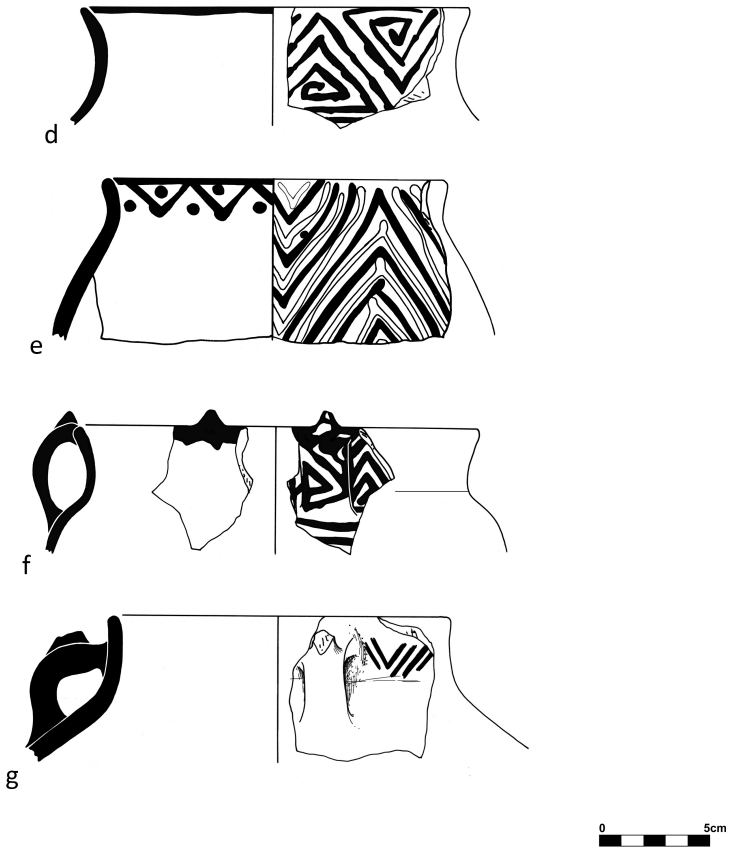


Figure 169 *a-c = PCW-CR6; d-g = CHM-CR1*

Figure 169						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	PCW-CR6	HAGRIT	Siraf		2007.6001,5461	1:3
b	PCW-CR6	HAGRIT	Siraf		2007.6001,7013	1:3
c	PCW-CR6	HAGRIT	Siraf		2007.6001,7601	1:3
d	CHM-CR1	HMPW-2	Siraf		2007.6001,5868	1:3
e	CHM-CR1	HMPW-2	Siraf		2007.6001,6118	1:3
f	CHM-CR1	HMPW-2	Siraf		2007.6001,6556	1:3
g	CHM-CR1	HMPW-2	Siraf		2007.6001,1929	1:3

CHM – Crude Handmade Wares

Type	Form	Class(es)	Illustration	Concordance	Description
CHM-CR1	Jar	HMPW-2	Fig. 169: d-g		Wide-mouthed, gently everted rim, often with a strap handle attached to the neck, or rim, and shoulder
CHM-OR1	Cooking bowl	CHAM	Fig. 170: a-c		Crude, short sided, flat-bottomed vessel, with an applied chain ridge cordon
CHM-OR2	Cooking bowl	CHAM	Fig. 170: d-e		Vertical-sided cooking bowl, with a pointed rim and cloth impressed sides
CHM-OR3	Cooking bowl	CHAM	Figs. 170: f-g; 171	Priestman, 2005a: CHM.1:02; CHM.2:02; CHM.3:02	Crudely formed, open cooking bowl, with a simple rounded rim
CHM-CR2	Cooking pot	CHAM	Fig. 172	Priestman, 2005a: CHM.1:01; CHM.2:01; CHM.3:01; Siraf: OO	Crudely formed, closed cooking pot, with a simple 'S' profile rim
CHM-CR3	Cooking pot	CHAM	Fig. 173: a-e	Priestman, 2005a: CHM.1:03 (some); CHM.2:01 (some); Siraf: OO	Cooking pot, or jar, with a sinuous 'S' profile rim, and a strap handle attached to the neck and shoulder
CHM-OR4	Platter	CHAM	Fig. 175	Priestman, 2005a: CHM.1:05; CHM.2:04; CHM.3:04	Flat-bottomed platter with an upturned lip
CHM-OR5	Incense burner	CHAM	Fig. 173: f-j		Open dish with a solid handle. Burner or lamp?
CHM-L1	Lid	CHAM	Fig. 174	Priestman, 2005a: CHM.1:04	Cooking pot lid with a flat base, rounded lip and an arcing strap handle attached in the centre

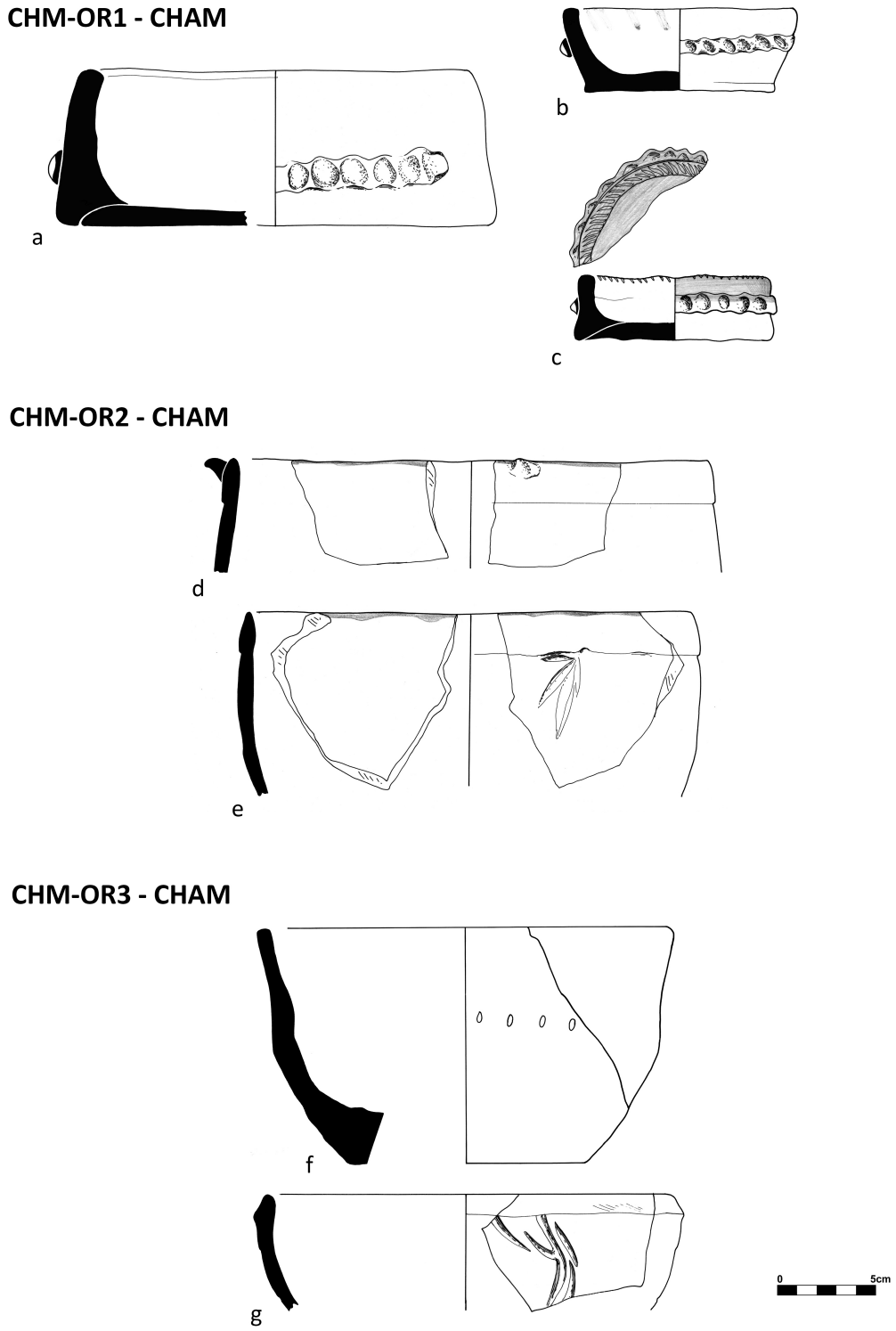


Figure 170 *a-c = CHM-OR1; d-e = CHM-OR2; f-g = CHM-OR3*

Figure 170						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	CHM-OR1	CHAM	Siraf		2007.6001,6144	1:3
b	CHM-OR1	CHAM	Siraf		2007.6001,5873	1:3
c	CHM-OR1	CHAM	Siraf		2007.6001,5878	1:3
d	CHM-OR2	CHAM	Siraf		2007.6001,5900	1:3
e	CHM-OR2	CHAM	Siraf		2007.6001,5799	1:3
f	CHM-OR3	CHAM	Williamson/ K99		3922	1:3
g	CHM-OR3	CHAM	Siraf		2007.6001,115	1:3

CHM-OR3 - CHAM

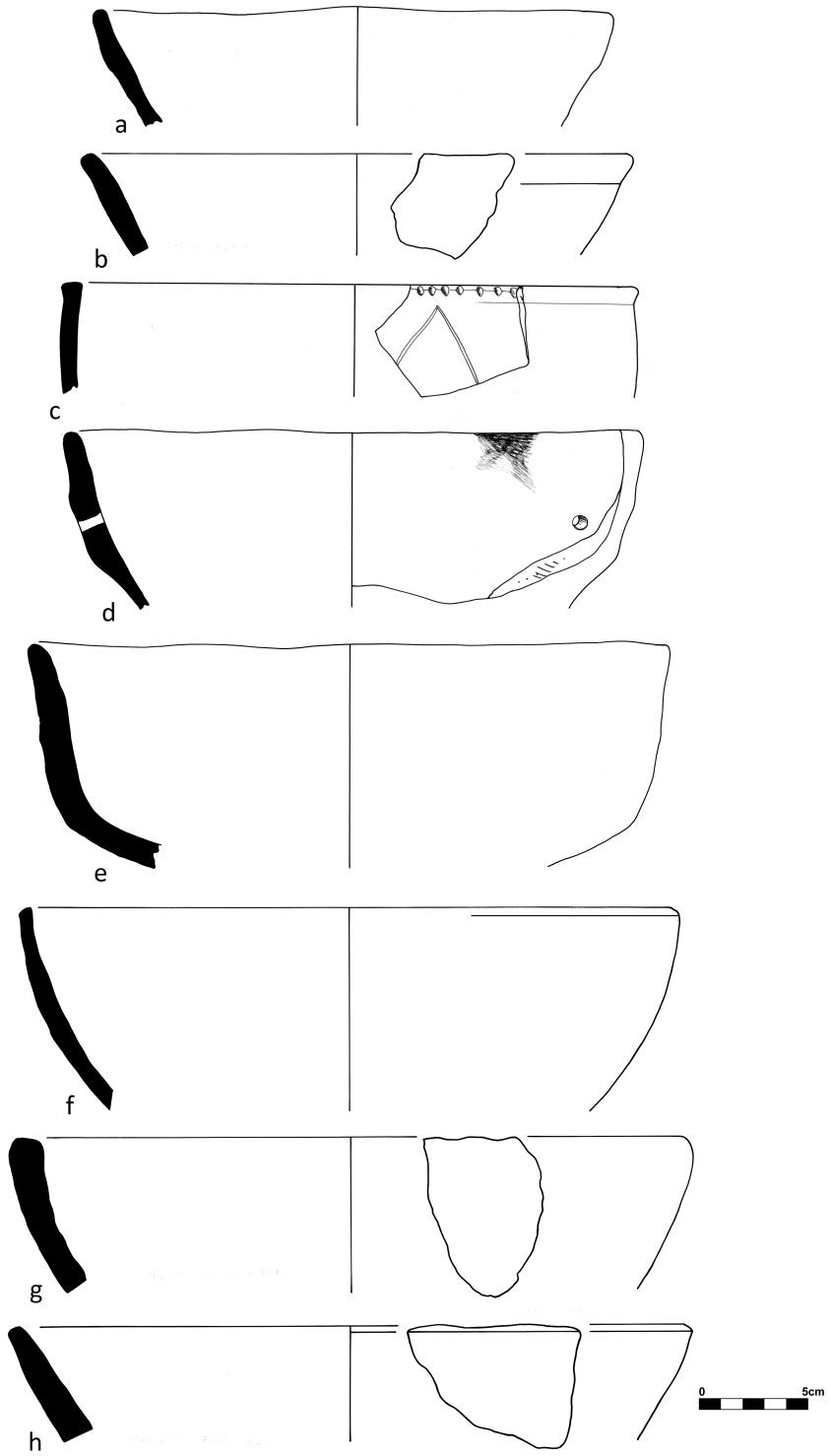


Figure 171 *a-h = CHM-OR3*

Figure 171						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	CHM-OR3	CHAM	Siraf		2007.6001,5831	1:3
b	CHM-OR3	CHAM	Williamson/ K104		10432	1:3
c	CHM-OR3	CHAM	Siraf		2007.6001,102	1:3
d	CHM-OR3	CHAM	Siraf		2007.6001,2	1:3
e	CHM-OR3	CHAM	Siraf		2007.6001,2269	1:3
f	CHM-OR3	CHAM	Williamson		13835	1:3
g	CHM-OR3	CHAM	Williamson/ K170B		4178	1:3
h	CHM-OR3	CHAM	Williamson/ QAN		7216	1:3

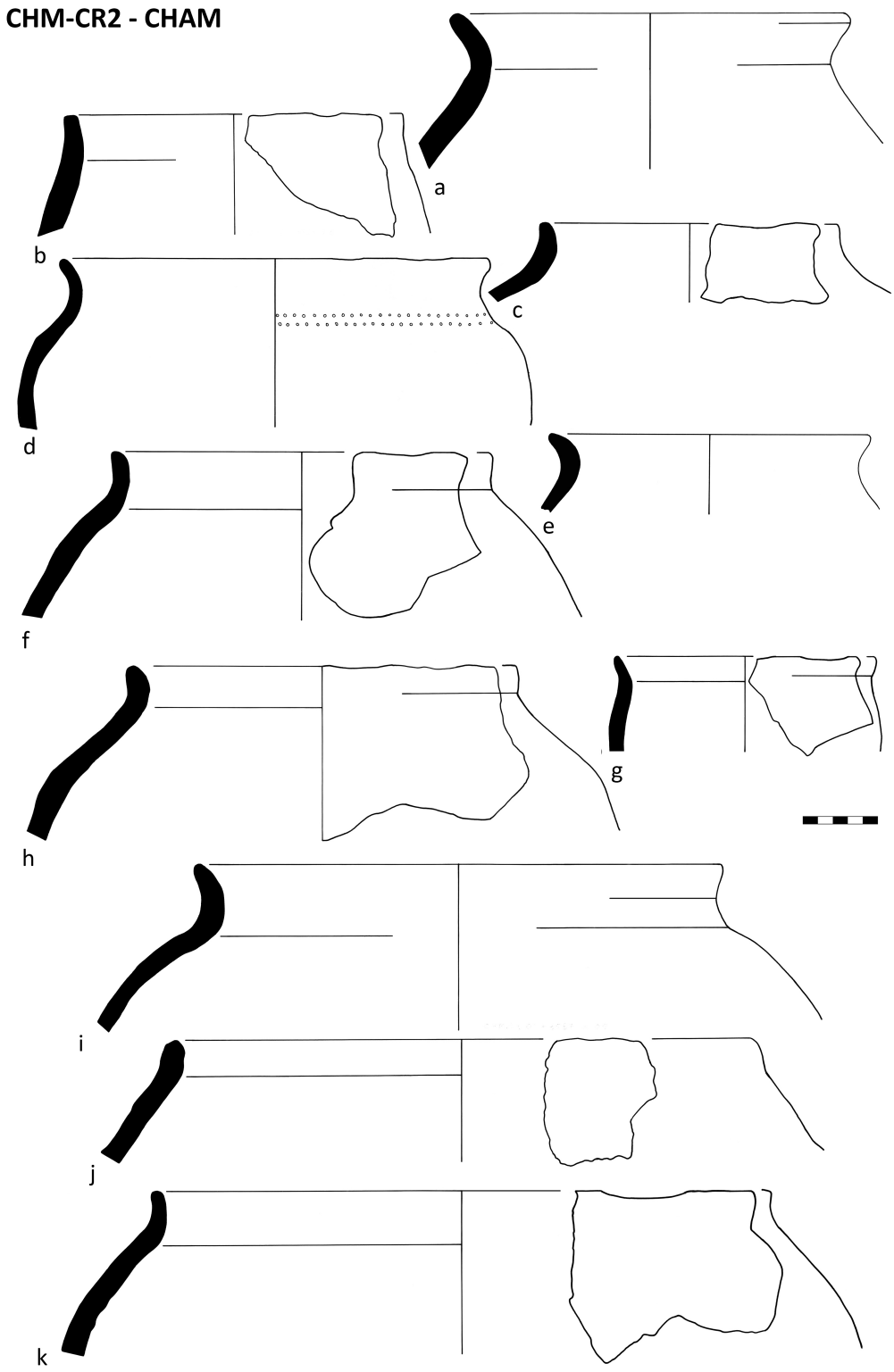
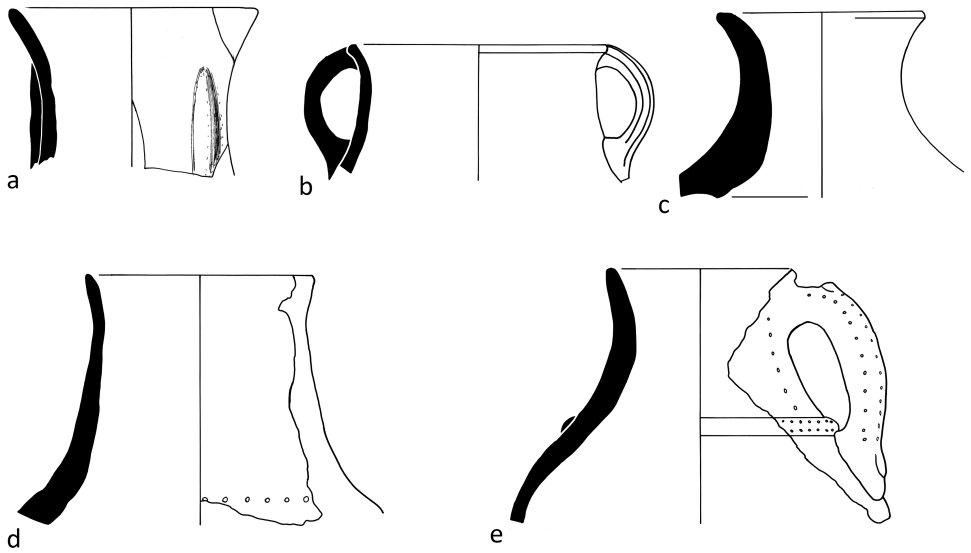


Figure 172 *a-k = CHM-CR2*

Figure 172						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	CHM-CR2	CHAM	Williamson/ P6A		5492	1:3
b	CHM-CR2	CHAM	Williamson/ Q3		6986	1:3
c	CHM-CR2	CHAM	Williamson/ K104		13530	1:3
d	CHM-CR2	CHAM	Williamson/ K154		14254	1:3
e	CHM-CR2	CHAM	Siraf		2007.6001,8330	1:3
f	CHM-CR2	CHAM	Williamson/ K198		6621	1:3
g	CHM-CR2	CHAM	Williamson/ Q7		7045	1:3
h	CHM-CR2	CHAM	Williamson/ K104		3920	1:3
i	CHM-CR2	CHAM	Williamson/ K105		3587	1:3
j	CHM-CR2	CHAM	Williamson/ P15		19365	1:3
k	CHM-CR2	CHAM	Williamson/ K110		13193	1:3

CHM-CR3 - CHAM



CHM-OR5 - CHAM

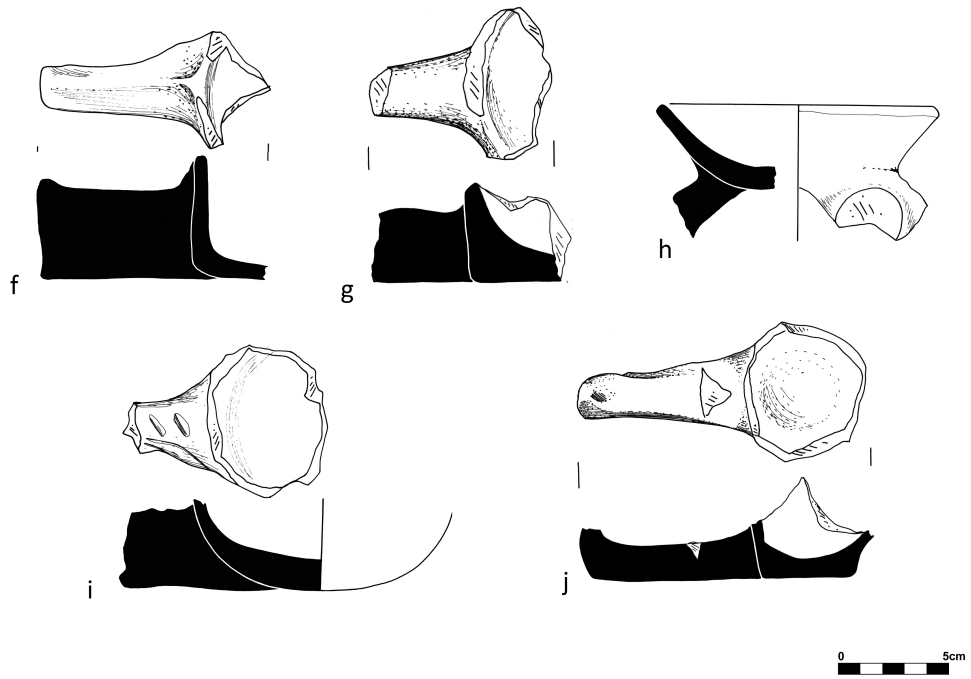


Figure 173 *a-e = CHM-CR3; f-j = CHM-OR5*

Figure 173						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	CHM-CR3	CHAM	Siraf		2007.6001,2291	1:3
b	CHM-CR3	CHAM	Williamson/ K170		4053	1:3
c	CHM-CR3	CHAM	Williamson/ K105		13137	1:3
d	CHM-CR3	CHAM	Williamson/ K170		4041	1:3
e	CHM-CR3	CHAM	Williamson/ K131Q		3588	1:3
f	CHM-OR5	CHAM	Siraf		2007.6001,6195	1:3
g	CHM-OR5	CHAM	Siraf		2007.6001,69	1:3
h	CHM-OR5	CHAM	Siraf		2007.6001,2753	1:3
i	CHM-OR5	CHAM	Siraf		2007.6001,2175	1:3
j	CHM-OR5	CHAM	Siraf		2007.6001,5988	1:3

CHM-L1 - CHAM

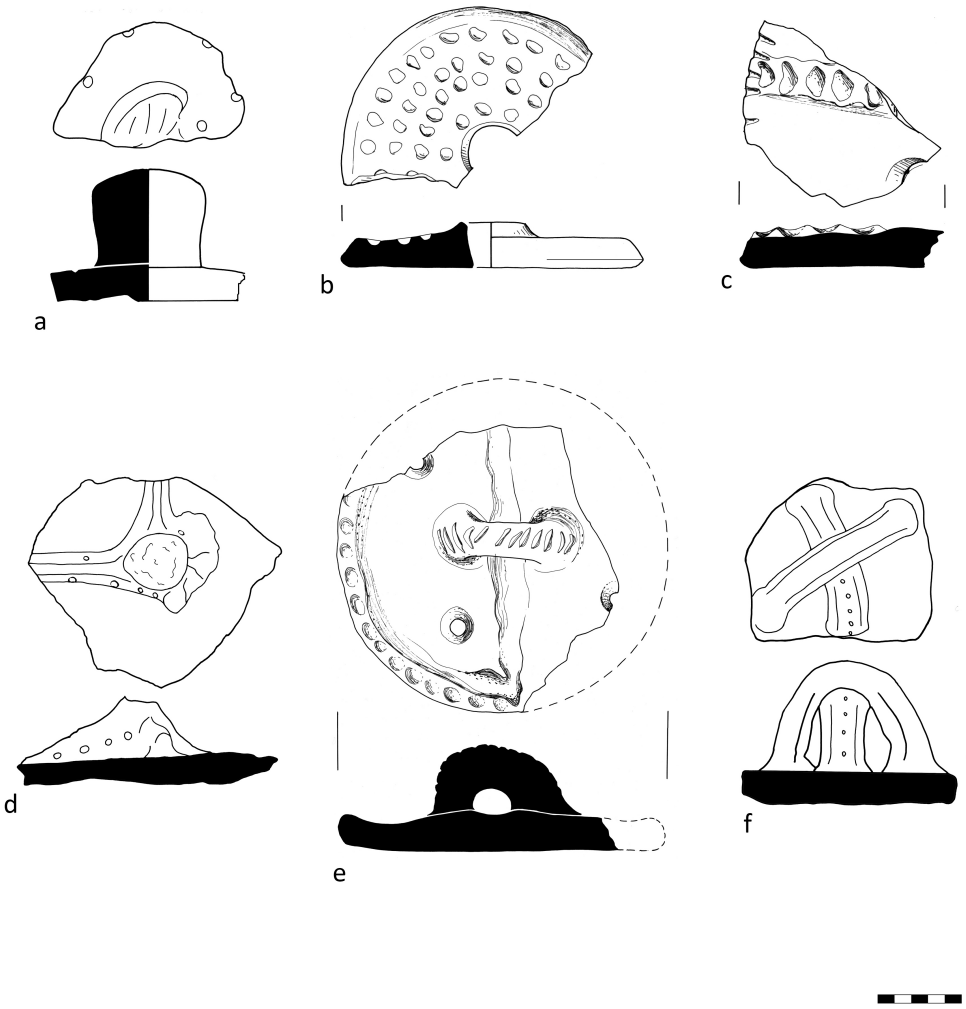


Figure 174 *a-f = CHM-L1*

Figure 174						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	CHM-L1	CHAM	Williamson/ K72		3936	1:3
b	CHM-L1	CHAM	Siraf		2007.6001,5591	1:3
c	CHM-L1	CHAM	Siraf		2007.6001,6162	1:3
d	CHM-L1	CHAM	Williamson/ K#		3930	1:3
e	CHM-L1	CHAM	Siraf		2007.6001,9833	1:3
f	CHM-L1	CHAM	Williamson/ K154		13175	1:3

CHM-OR4 - CHAM

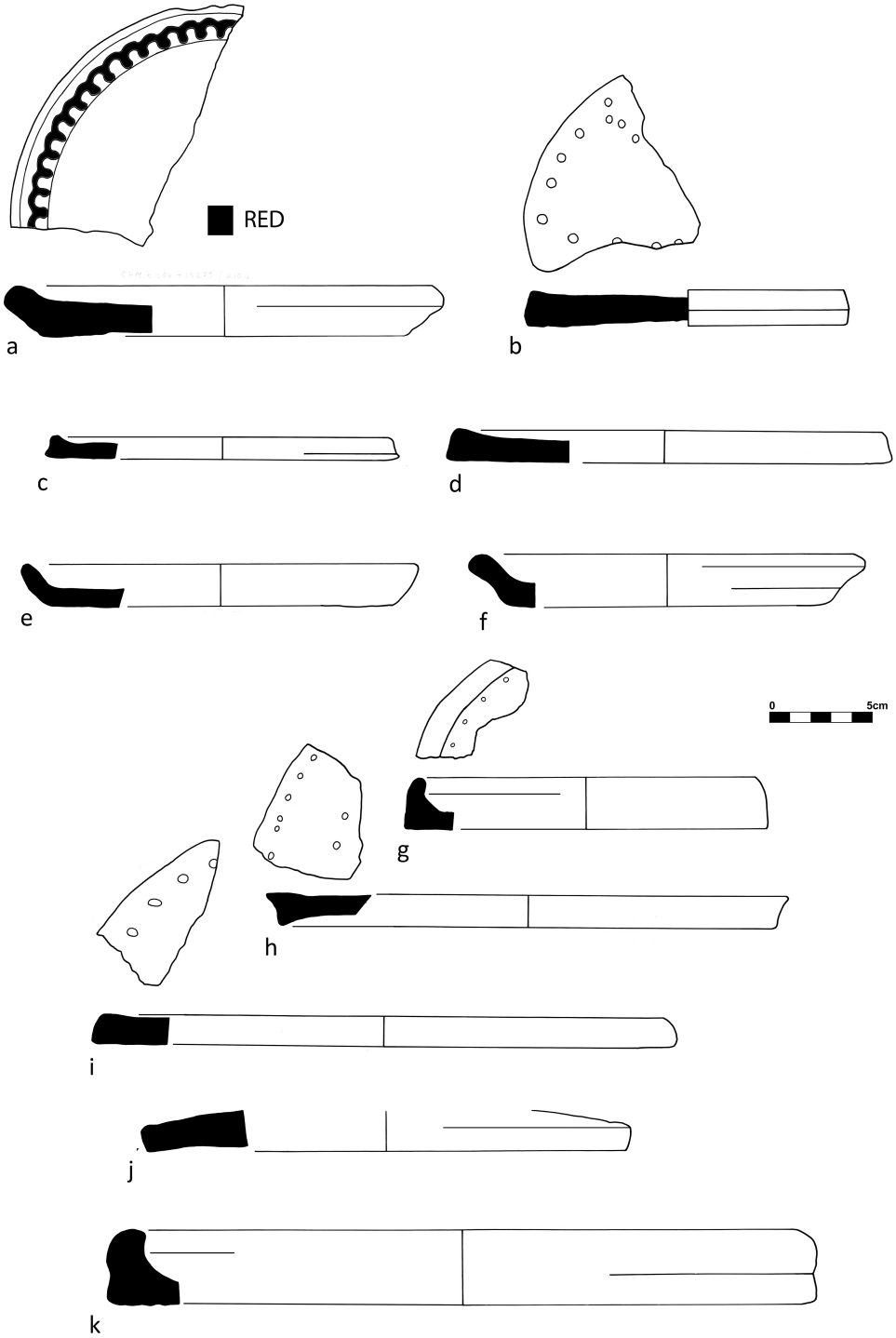


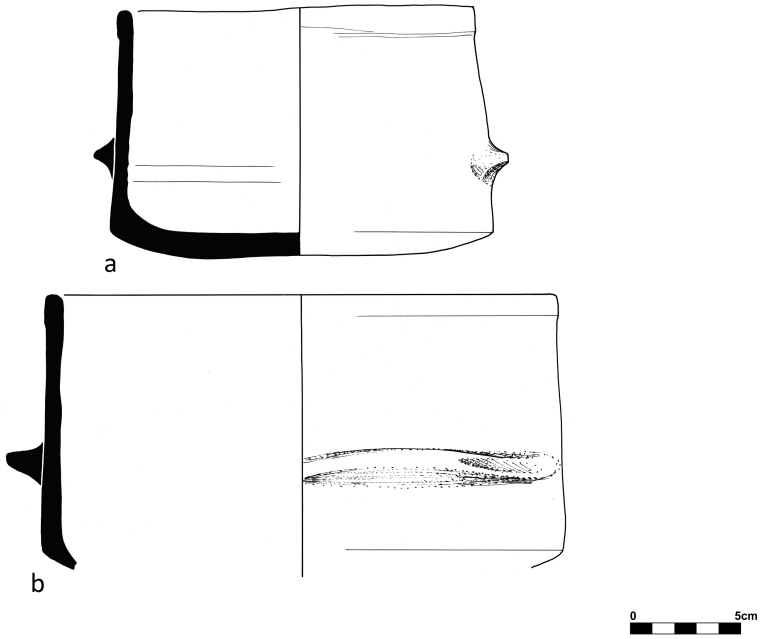
Figure 175 *a-k = CHM-OR4*

Figure 175						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	CHM-OR4	CHAM	Williamson/ K153		14889	1:3
b	CHM-OR4	CHAM	Williamson/ K130D		3536	1:3
c	CHM-OR4	CHAM	Williamson/ K17A		4196	1:3
d	CHM-OR4	CHAM	Williamson/ K104		15293	1:3
e	CHM-OR4	CHAM	Williamson/ K153		3552	1:3
f	CHM-OR4	CHAM	Williamson/ K153		13508	1:3
g	CHM-OR4	CHAM	Williamson/ Q16		7160	1:3
h	CHM-OR4	CHAM	Williamson/ K176		6606	1:3
i	CHM-OR4	CHAM	Williamson/K138		3989	1:3
j	CHM-OR4	CHAM	Williamson/ K104		15257	1:3
k	CHM-OR4	CHAM	Williamson/ H65		2042	1:3

JUL – Julfar Ware

Type	Form	Class(es)	Illustration	Type Concordance	Description
JUL-CR1.1	Cooking pot	JULFAR.PB	Fig. 179: a-j	Kennet, 2004: Type CP1.1	Closed-mouthed cooking pot with a thickened, rounded lip, and pointed lug handles attached to the rim or shoulder
JUL-CR1.2	Cooking pot	JULFAR	Figs. 176: c-f; 177	Kennet, 2004: Type CP1.2	Closed-mouthed cooking pot with relatively steep sides, and a continuous band running around the vessel beneath the lip
JUL-CR1.6	Cooking pot	JULFAR	Fig. 176: a-b		Closed-mouthed cooking pot with straight sides and lug handles attached low down towards the base. Type not represented amongst the JULFAR forms from Kush or al-Mataf. May not be Julfar Ware
JUL-CR6.1	Cooking pot	JULFAR	Fig. 178: a-c	Kennet, 2004: Type CP6.1	Closed-mouthed cooking pot, with an out turned rim, and lug handles attached to the shoulder
JUL-CR6.2	Cooking pot	JULFAR	Fig. 178: d-e		Closed-mouthed cooking pot with a thickened lip, a slightly bevelled upper face, and a low band below the rim exterior
JUL-CR8	Cooking pot	JULFAR.PB	Fig. 179: k-n		Closed-mouthed cooking pot, with an externally thickened lip, and pointed lug handles attached to the rim. Associated with purple on black decorated Julfar Ware
JUL-CR9	Coffee pot	JULFAR.RW	Fig. 180	Kennet, 2004: Types J2.1 and J2.3	Bridge spouted and handled 'coffee pot' pouring jar
JUL-CR10	Storage Jar	JULFAR	Fig. 181: m-p		Heavy, closed-mouthed storage vessel, with a folded flat top rim and a well defined outer lip
JUL-OR1.1	Bowl	JULFAR.RW	Fig. 181: a-g	Kennet, 2004: Type B1.1	Gently carinated clubbed-rim bowl
JUL-OR1.4	Bowl	JULFAR.RW	Fig. 181: h-l	Kennet, 2004: Type B1.4 (some)	Thickened flange with a rounded outer lip

JUL-CR1.6 - JULFAR



JUL-CR1.2 - JULFAR

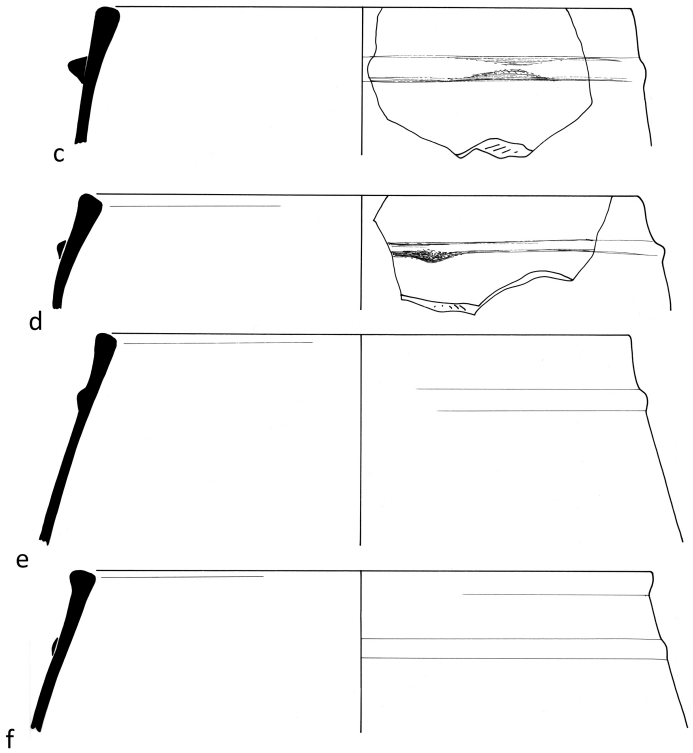


Figure 176 *a-b = JUL-CR1.6; c-f = CR1.2 (Type CP1.2)*

Figure 176						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	JUL-CR1.6	JULFAR	Siraf		2007.6001,5162	1:3
b	JUL-CR1.6	JULFAR	Siraf		2007.6001,5179	1:3
c	JUL-CR1.2	JULFAR	Siraf		2007.6001,5	1:3
d	JUL-CR1.2	JULFAR	Siraf		2007.6001,231	1:3
e	JUL-CR1.2	JULFAR	Siraf		2007.6001,5720	1:3
f	JUL-CR1.2	JULFAR	Siraf		2007.6001,2289	1:3

JUL-CR1.2 - JULFAR

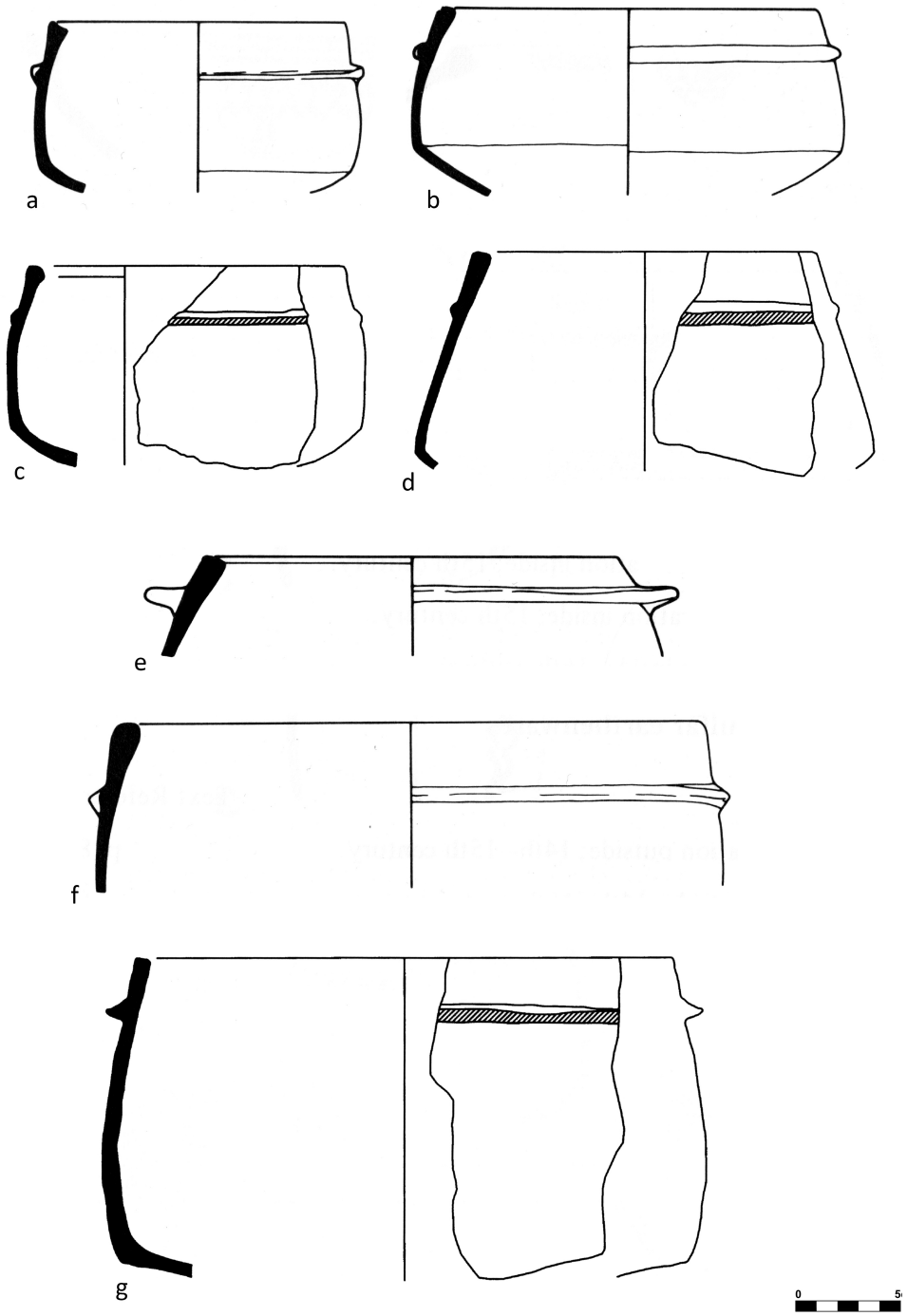
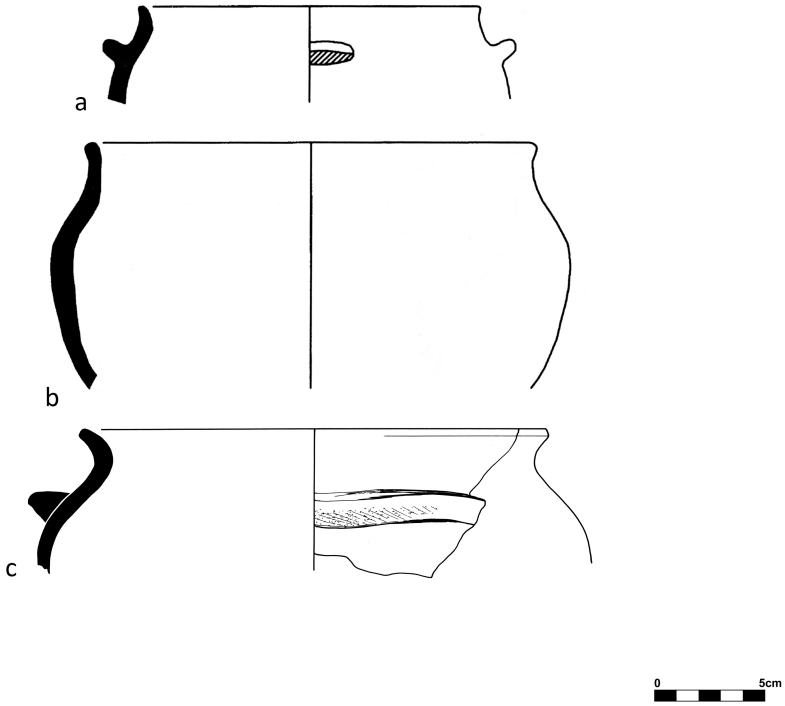


Figure 177 *a-g = JUL-CR1.2 (Type CP1.2)*

Figure 177						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	JUL-CR1.2	JULFAR	al-Mataf	Hansman, 1985: fig. 14: a		1:3
b	JUL-CR1.2	JULFAR	al-Mataf	Hansman, 1985: fig. 14: b		1:3
c	JUL-CR1.2	JULFAR	al-Mataf	Kennet: 2004: fig. 21		1:3
d	JUL-CR1.2	JULFAR	Kush	Kennet: 2004: fig. 20		1:3
e	JUL-CR1.2	JULFAR	al-Mataf	Hansman, 1985: fig. 14: d		1:3
f	JUL-CR1.2	JULFAR	al-Mataf	Hansman, 1985: fig. 14: c		1:3
g	JUL-CR1.2	JULFAR	Kush	Kennet: 2004: fig. 20		1:3

JUL-CR6.1 - JULFAR



JUL-CR6.2 - JULFAR

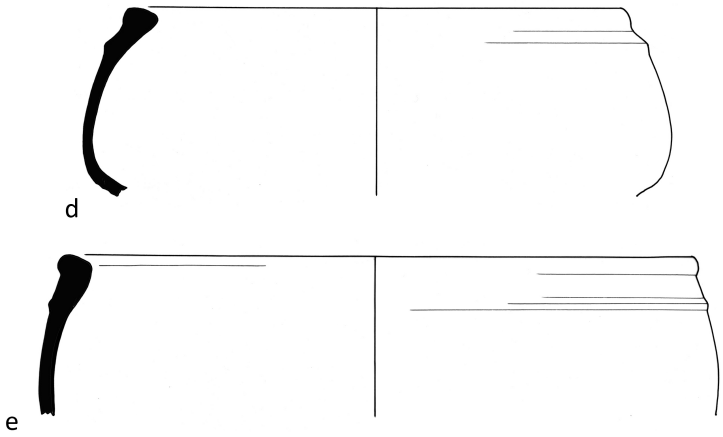
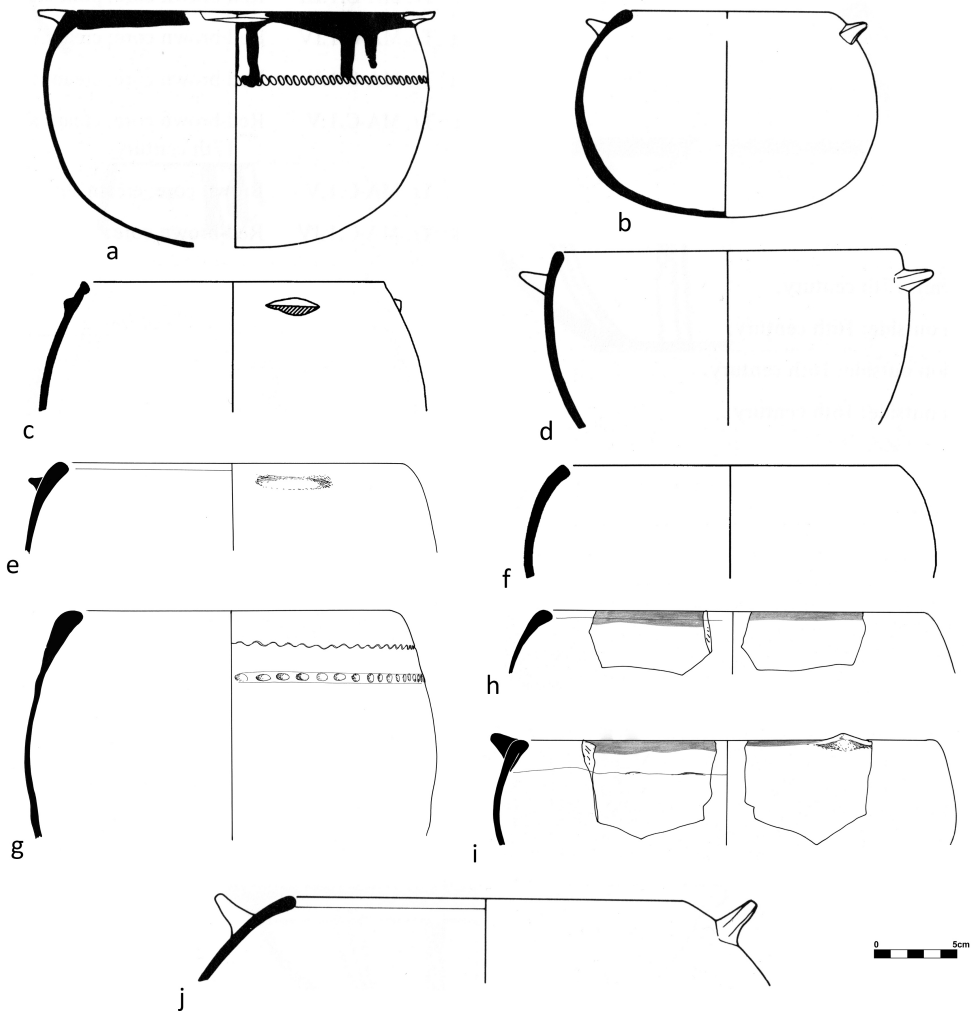


Figure 178 *a-c = JUL-CR6.1 (Type CP6.1); d-e = JUL-CR6.2*

Figure 178						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	JUL-CR6.1	JULFAR	Kush	Kennet: 2004: fig. 20		1:3
b	JUL-CR6.1	JULFAR	Kush	Kennet: 2004: fig. 20		1:3
c	JUL-CR6.1	JULFAR	Siraf		2007.6001,8004	1:3
d	JUL-CR6.2	JULFAR	Siraf		2007.6001,5823	1:3
e	JUL-CR6.2	JULFAR	Siraf		2007.6001,5819	1:3

JUL-CR1.1 - JULFAR.PB



JUL-CR8 - JULFAR.PB

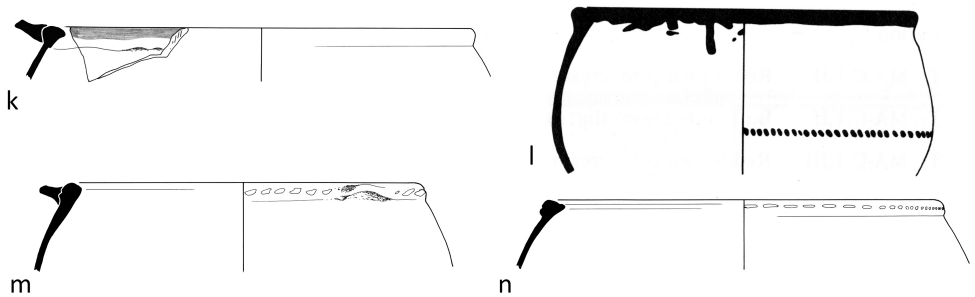


Figure 179 *a-j = JUL-CR1.1 (Type CP1.1); k-n = JUL-CR8*

Figure 179						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	JUL-CR1.1	JULFAR.PB	al-Mataf	Hansman, 1985: fig. 14: j		1:3
b	JUL-CR1.1	JULFAR.PB	al-Mataf	Hansman, 1985: fig. 14: h		1:3
c	JUL-CR1.1	JULFAR.PB	al-Mataf	Kennet: 2004: fig. 21		1:3
d	JUL-CR1.1	JULFAR.PB	al-Mataf	Hansman, 1985: fig. 14: e		1:3
e	JUL-CR1.1	JULFAR.PB	Siraf		2007.6001,1883	1:3
f	JUL-CR1.1	JULFAR.PB	al-Mataf	Kennet: 2004: fig. 21		1:3
g	JUL-CR1.1	JULFAR.PB	Siraf		2007.6001,5500	1:3
h	JUL-CR1.1	JULFAR.PB	Siraf		2007.6001,6216	1:3
i	JUL-CR1.1	JULFAR.PB	Siraf		2007.6001,5513	1:3
j	JUL-CR1.1	JULFAR.PB	al-Mataf	Hansman, 1985: fig. 14: g		1:3
k	JUL-CR8	JULFAR.PB	Siraf		2007.6001,5801	1:3
l	JUL-CR8	JULFAR.PB	al-Mataf	Hansman, 1985: fig. 14: i		1:3
m	JUL-CR8	JULFAR.PB	Siraf		2007.6001,5495	1:3
n	JUL-CR8	JULFAR.PB	Siraf		2007.6001,5821	1:3

JUL-CR9 - JULFAR.RW

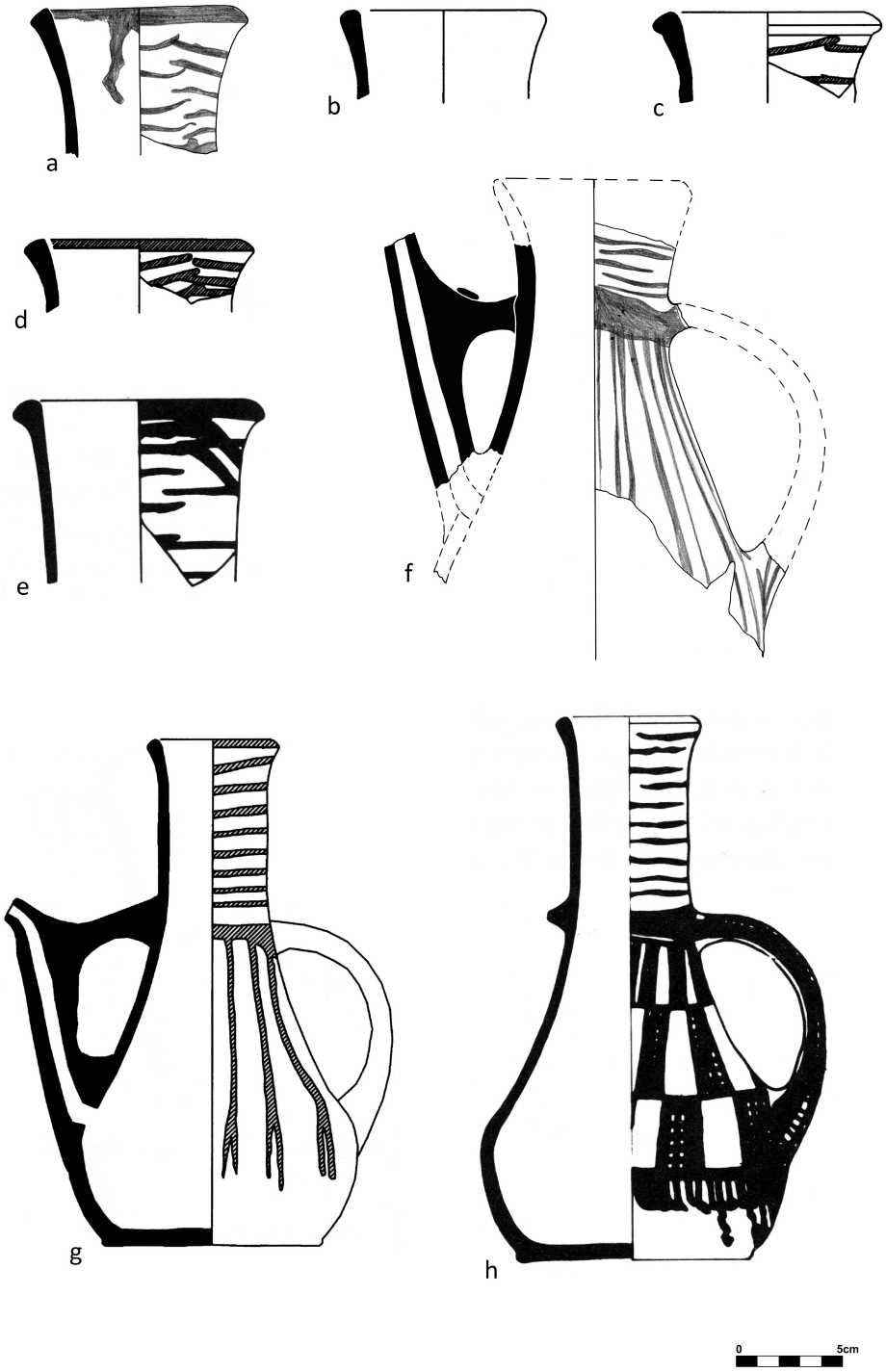
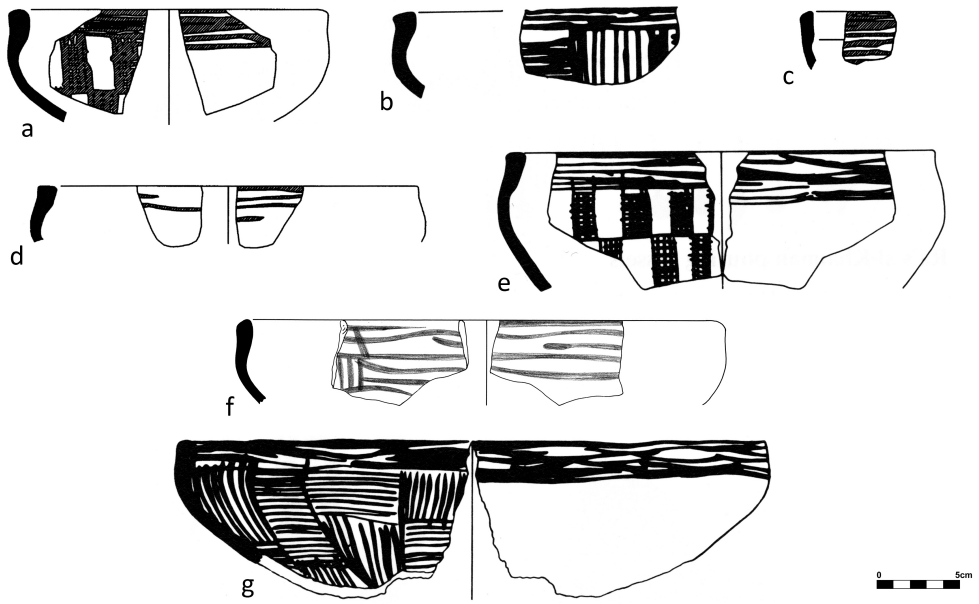


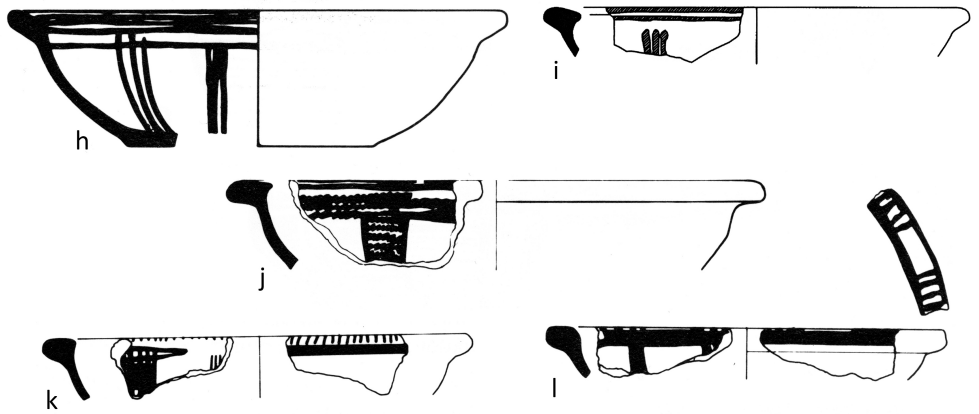
Figure 180 *a-h = JUL-CR9 (Types J2.1 and J2.3)*

Figure 180						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	JUL-CR9	JULFAR.RW	Siraf		2007.6001,5585	1:3
b	JUL-CR9	JULFAR.RW	al-Mataf	Kennet: 2004: fig. 22		1:3
c	JUL-CR9	JULFAR.RW	al-Mataf	Kennet: 2004: fig. 22		1:3
d	JUL-CR9	JULFAR.RW	al-Mataf	Kennet: 2004: fig. 22		1:3
e	JUL-CR9	JULFAR.RW	al-Mataf	Hansman, 1985: fig. 17: g		1:3
f	JUL-CR9	JULFAR.RW	Siraf		2007.6001,9859	1:3
g	JUL-CR9	JULFAR.RW	al-Mataf	Kennet: 2004: fig. 22		1:3
h	JUL-CR9	JULFAR.RW	al-Mataf	Hansman, 1985: fig. 17: c		1:3

JUL-OR1.1 - JULFAR.RW



JUL-OR1.4 - JULFAR.RW



JUL-CR10 - JULFAR

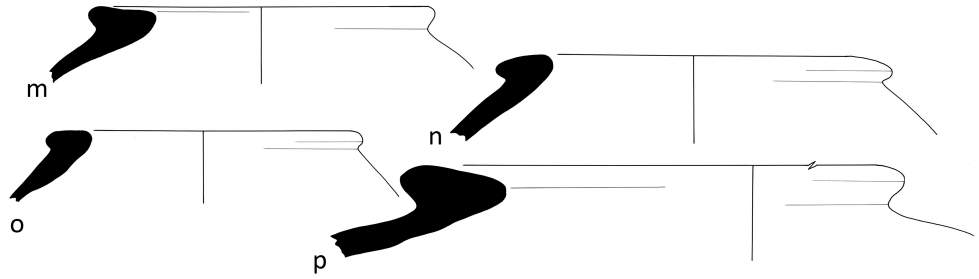


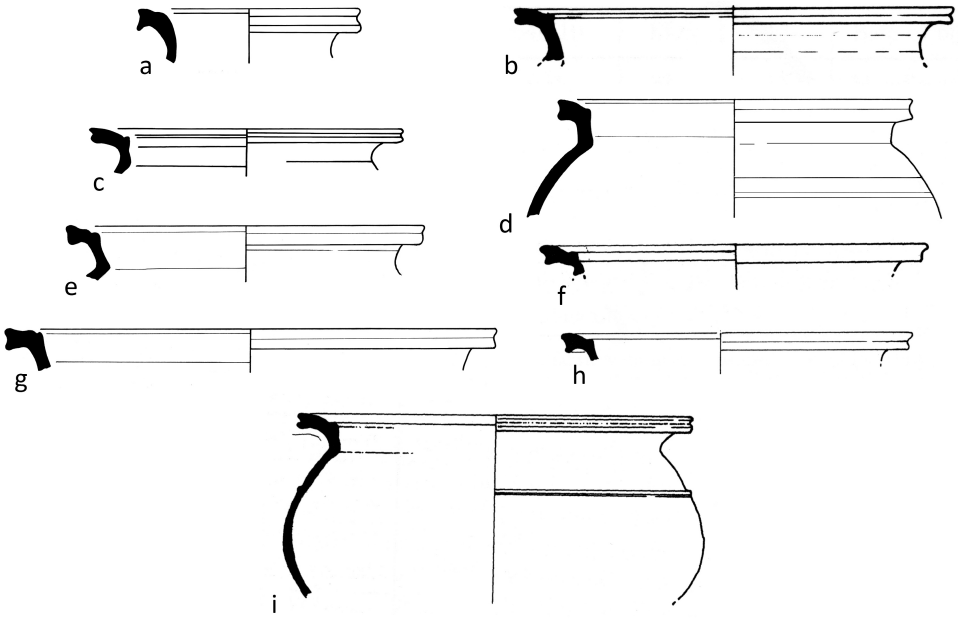
Figure 181 *a-g = JUL-OR1.1 (Type B1.1); h-l = JUL-OR1.4 (Type B1.4); m-p = JUL-CR10*

Figure 181						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	JUL-OR1.1	JULFAR.RW	al-Mataf	Kennet: 2004: fig. 22		1:4
b	JUL-OR1.1	JULFAR.RW	al-Mataf	Hansman, 1985: fig. 16: e		1:4
c	JUL-OR1.1	JULFAR.RW	al-Mataf	Kennet: 2004: fig. 22		1:4
d	JUL-OR1.1	JULFAR.RW	al-Mataf	Kennet: 2004: fig. 22		1:4
e	JUL-OR1.1	JULFAR.RW	al-Mataf	Hansman, 1985: fig. 16: c		1:4
f	JUL-OR1.1	JULFAR.RW	Siraf		2007.6001,8813	1:4
g	JUL-OR1.1	JULFAR.RW	al-Mataf	Hansman, 1985: fig. 16: g		1:4
h	JUL-OR1.4	JULFAR.RW	al-Mataf	Hansman, 1985: fig. 15: g		1:4
i	JUL-OR1.4	JULFAR.RW	al-Mataf	Kennet: 2004: fig. 22		1:4
j	JUL-OR1.4	JULFAR.RW	al-Mataf	Hansman, 1985: fig. 15: f		1:4
k	JUL-OR1.4	JULFAR.RW	al-Mataf	Hansman, 1985: fig. 16: d		1:4
l	JUL-OR1.4	JULFAR.RW	al-Mataf	Hansman, 1985: fig. 15: h		1:4
m	JUL-CR10	JULFAR	Siraf		2007.6001,5911	1:4
n	JUL-CR10	JULFAR	Siraf		2007.6001,5576	1:4
o	JUL-CR10	JULFAR	Siraf		2007.6001,15	1:4
p	JUL-CR10	JULFAR	Siraf		2007.6001,5824	1:4

IND – Indian

Type	Form	Class(es)	Illustration	Concordance	Description
IND-CR1	Jar	IRPW	Fig. 182: a-i	Priestman, 2005a: IRP: 01	Sharply everted flange rim, with detailed tooling around the top, edge, and shoulder
IND-CR2	Jar	HARMIC	Fig. 182: l-o		Sharply everted flange rim, with defined external collar
IND-CR3	Jar	HARMIC	Fig. 183: a-g		Sharply everted horizontally aligned, flange rim, with a slight trough in the top
IND-CR4	Jar	HARMIC	Fig. 183: h-l		Everted rim, squared on top, with a slight notch internally
IND-CR5	Jar	HARMIC	Fig. 184: a-c		Clubbed rim, with a single notch running around the outside
IND-CR6	Cooking pot	BUFRAB, HARMIC	Figs. 184: d-y; 185: a-e		Sharply everted flange rim, with a pointed and slightly splayed lip
IND-CR7	Cooking pot	BUFRAB	Fig. 185: f-j		Sharply everted flange rim, with relatively short and thickened flange section
IND-CR8	Jar	BUFRAB	Fig. 185: k-n	Priestman, 2005a: IRB: 02 (some)	Sharply everted rim with squared outer face
IND-CR9	Cooking pot	BUFRAB	Fig. 186: a-e		Sharply everted horizontally aligned, flange rim
IND-CR10	Cooking pot	BUFRAB	Fig. 186: f-i		Sharply everted complex flange rim, with ribs and stepped breaks across the top
IND-CR11	Cooking pot	BUFRAB	Fig. 186: j-m		Sharply everted angled flange rim, with a recessed inner face
IND-CR12	Cooking pot	SBBW	Figs. 187: i-n; 188: a-c		Sharply everted flange rim, with squared, or rounded, outer edge
IND-CR13	Cooking pot	IRAB	Figs. 188: d-h; 189		Sharply everted complex flange rim, with grooves across the top and outer lip
IND-CR14	Storage Jar	LINVES	Fig. 190: a-g		Heavy storage vessel, with a splayed mouth, and an externally folded rim that comes to a rounded point at the lip
IND-CR15	Storage Jar	LINVES	Fig. 190: h-j		Thick-walled jar, with a sharply everted rim
IND-B1	Jar	IRPW	Fig. 182: j-k		Flat, raised base, with a turned recess inside the foot
IND-F1	Cooking pot	BUFRAB	Fig. 187: a-h		Body flange

IND-CR1 - IRPW



IND-B1 - IRPW

IND-CR2 - HARMIC

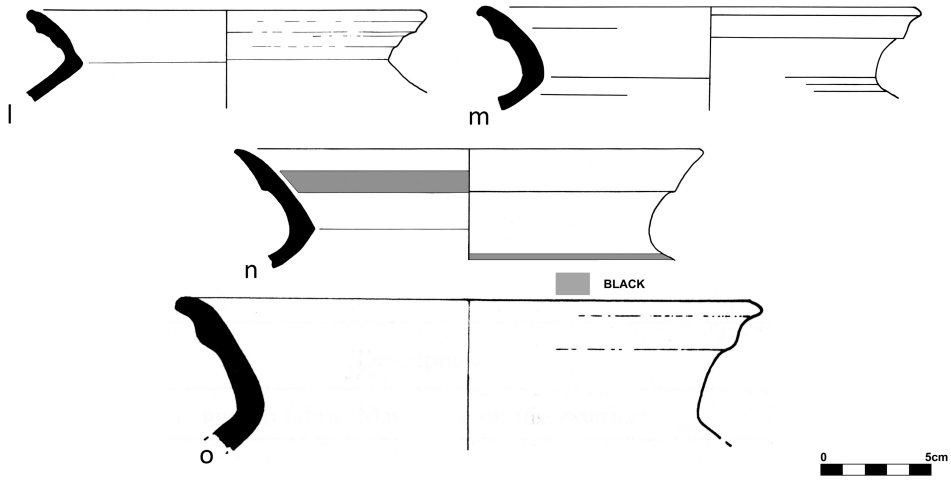


Figure 182 *a-i = IND-CR1; j-k = IND-B1; l-o = IND-CR2*

Figure 182						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	IND-CR1	IRPW	Wiliamson		11391	1:3
b	IND-CR1	IRPW	Sohar	Kervran, 2004: fig. 12: 18	648.1	1:3
c	IND-CR1	IRPW	Williamson/ B4		14369	1:3
d	IND-CR1	IRPW	Siraf		2007.6001,2990	1:3
e	IND-CR1	IRPW	Siraf		2007.6001,3007	1:3
f	IND-CR1	IRPW	Sohar	Kervran, 2004: fig. 18: 7	1534.1	1:3
g	IND-CR1	IRPW	Siraf		2007.6001,3021	1:3
h	IND-CR1	IRPW	Sohar	Kervran, 2004: fig. 17: 1	1519.1	1:3
i	IND-CR1	IRPW	Sohar	Kervran, 2004: fig. 18: 8	1543	1:3
j	IND-B1	IRPW	Williamson/ B19		14430	1:3
k	IND-B1	IRPW	Williamson/ B19		14427	1:3
l	IND-CR2	HARMIC	Siraf		2007.6001,8581	1:3
m	IND-CR2	HARMIC	Williamson		14075	1:3
n	IND-CR2	HARMIC	Siraf		2007.6001,3027	1:3
o	IND-CR2	HARMIC	Sohar	Kervran, 2004: fig. 10: 1	690.7	1:3

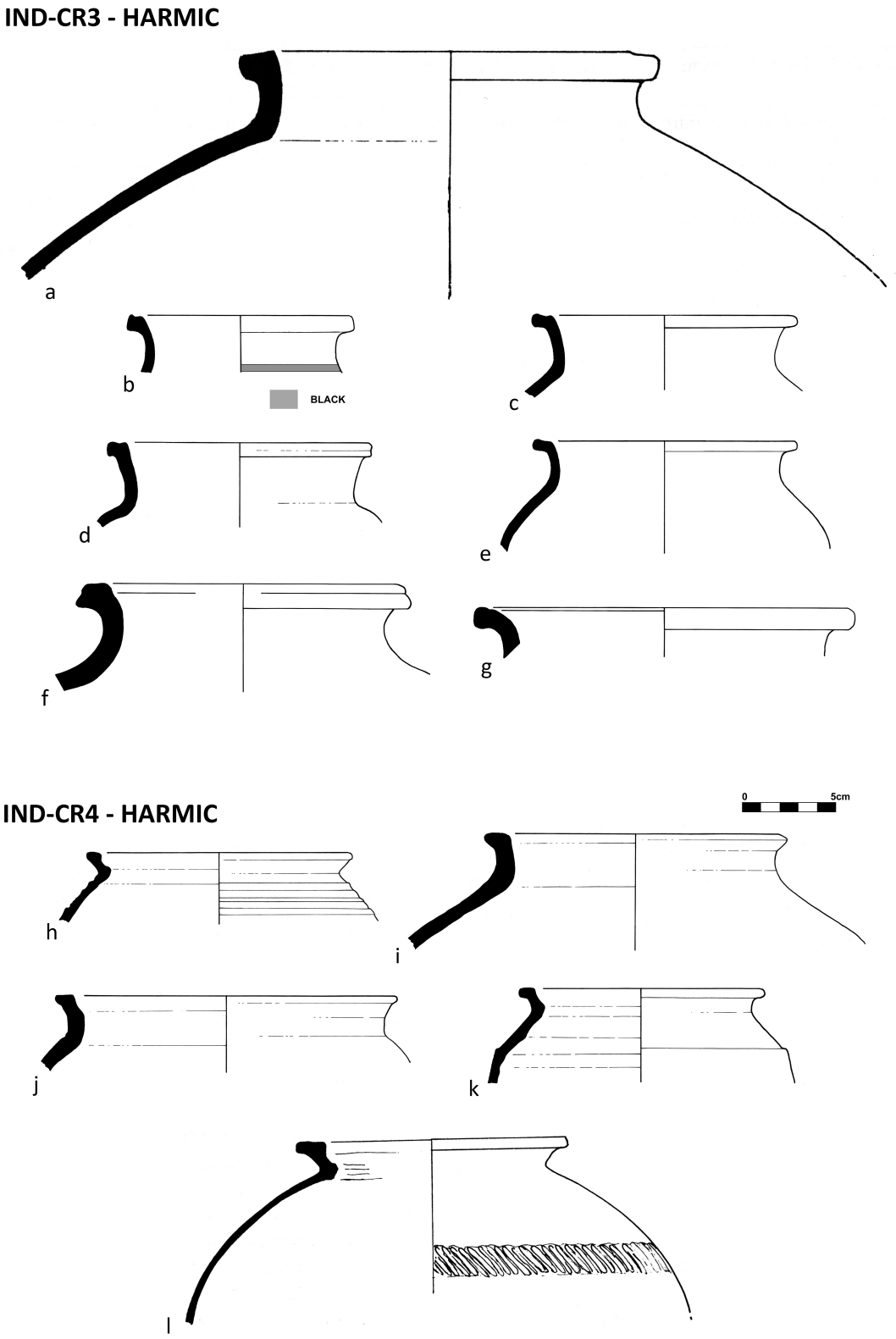


Figure 183 *a-g = IND-CR3; h-l = IND-CR4*

Figure 183						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	IND-CR3	HARMIC	Sohar	Kervran, 2004: fig. 29: 3	1061.11	1:3
b	IND-CR3	HARMIC	Siraf		2007.6001,7774	1:3
c	IND-CR3	HARMIC	Siraf		2007.6001,4025	1:3
d	IND-CR3	HARMIC	Siraf		2007.6001,6342	1:3
e	IND-CR3	HARMIC	Siraf		2007.6001,6716	1:3
f	IND-CR3	HARMIC	Williamson/ K138		14076	1:3
g	IND-CR3	HARMIC	Williamson/ K170A		4125	1:3
h	IND-CR4	HARMIC	Siraf		2007.6001,7943	1:3
i	IND-CR4	HARMIC	Siraf		2007.6001,1591	1:3
j	IND-CR4	HARMIC	Siraf		2007.6001,7445	1:3
k	IND-CR4	HARMIC	Siraf		2007.6001,7442	1:3
l	IND-CR4	HARMIC	Sohar	Kervran, 2004: fig. 26: 7	1522.2	1:3

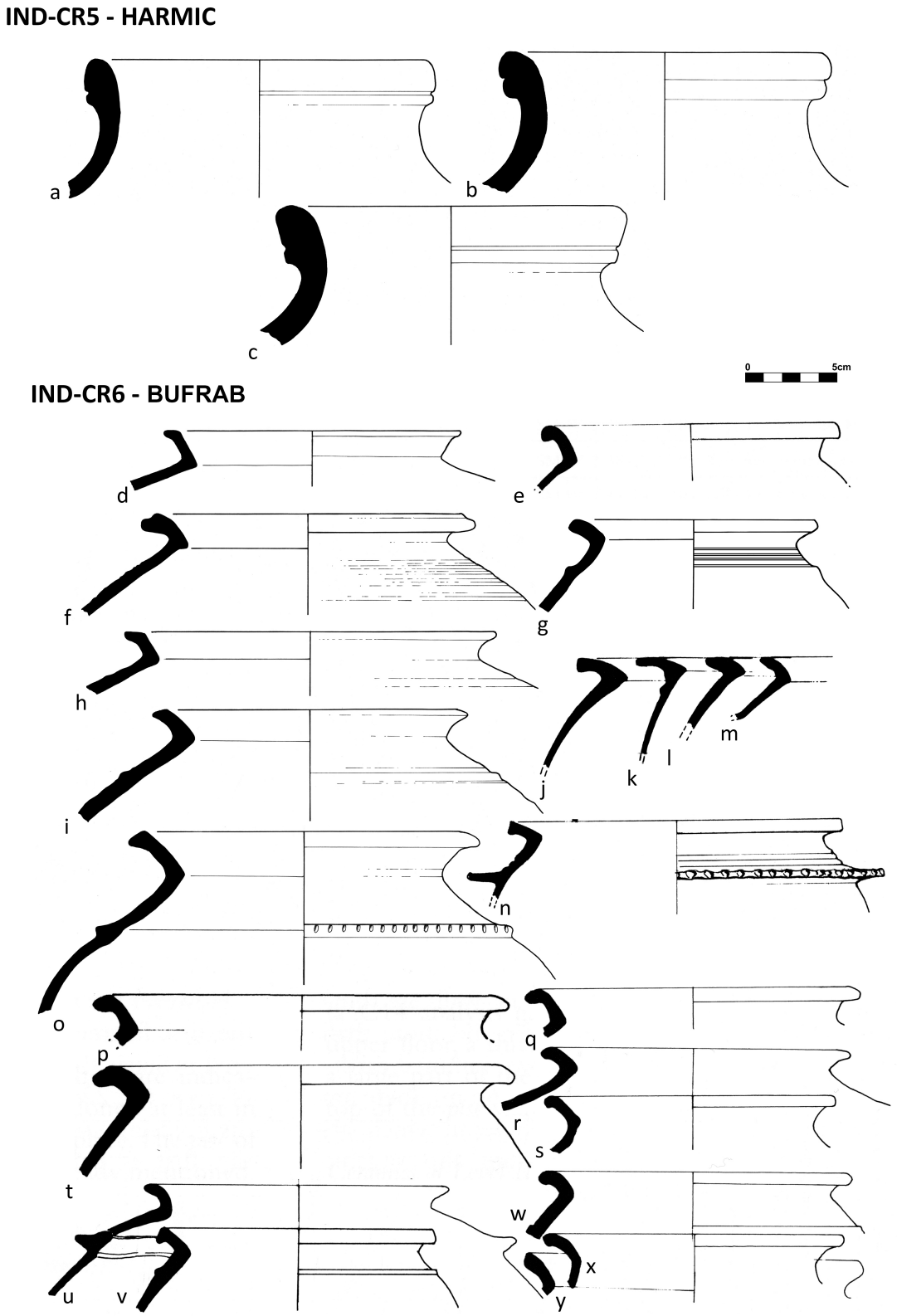
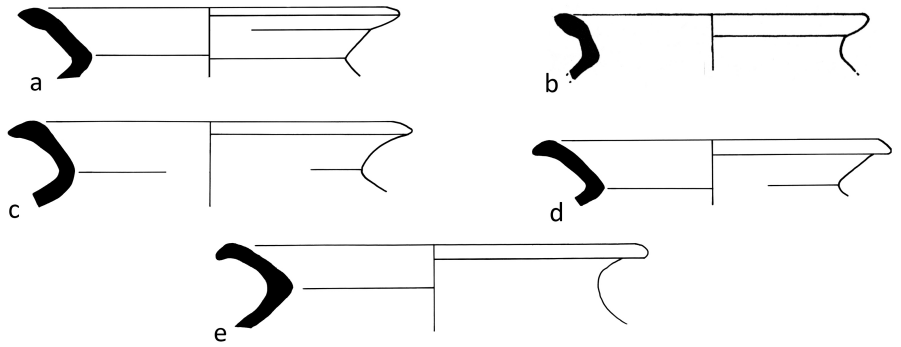


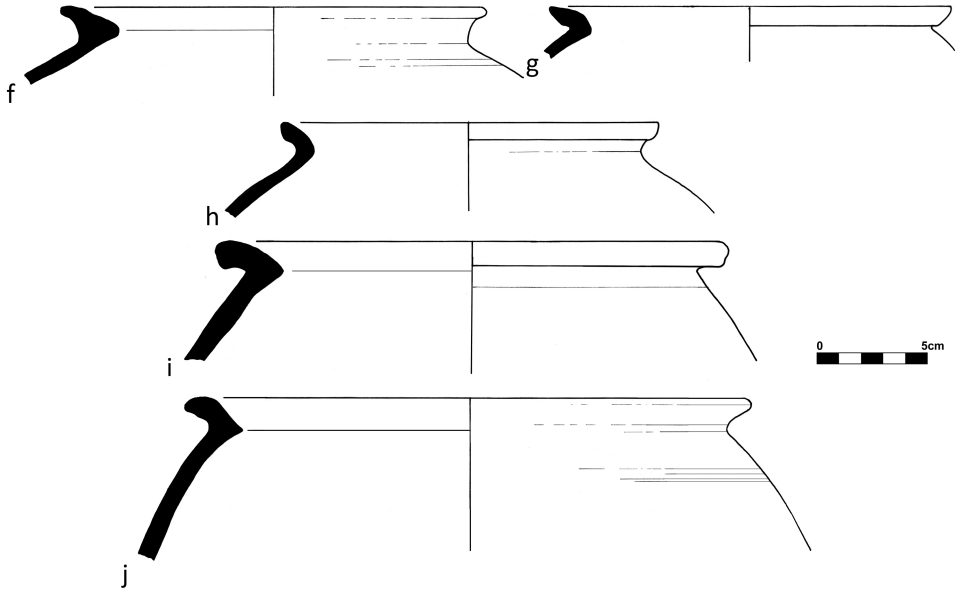
Figure 184 *a-c = IND-CR5; d-y = IND-CR6*

Figure 184						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	IND-CR5	HARMIC	Siraf		2007.6001,1159	1:3
b	IND-CR5	HARMIC	Siraf		2007.6001,2762	1:3
c	IND-CR5	HARMIC	Siraf		2007.6001,698	1:3
d	IND-CR6	BUFRAB	Siraf		2007.6001,8954	1:3
e	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 17: 4	1524.1	1:3
f	IND-CR6	BUFRAB	Siraf		2007.6001,6553	1:3
g	IND-CR6	BUFRAB	Williamson/ K#		4364	1:3
h	IND-CR6	BUFRAB	Siraf		2007.6001,8161	1:3
i	IND-CR6	BUFRAB	Siraf		2007.6001,7377	1:3
j	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 35: 20	1142.1	1:3
k	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 35: 19	1142.12	1:3
l	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 35: 18	1142.9	1:3
m	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 35: 17	1142.11	1:3
n	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 35: 21	1142.8	1:3
o	IND-CR6	BUFRAB	Siraf		2007.6001,6700	1:3
p	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 8: 10	713.3	1:3
q	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 21: 20	713.3	1:3
r	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 21: 21	634.2	1:3
s	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 21: 22	630.1	1:3
t	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 8: 11	717.17	1:3
u	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 23: 24	606.1	1:3
v	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 23: 25	712.1	1:3
w	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 21: 23	630.2	1:3
x	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 21: 24	624,1	1:3
y	IND-CR6	BUFRAB	Sohar	Kervran, 2004: fig. 21: 25	624.1	1:3

IND-CR6 - HARMIC



IND-CR7 - BUFRAB



IND-CR8 - BUFRAB

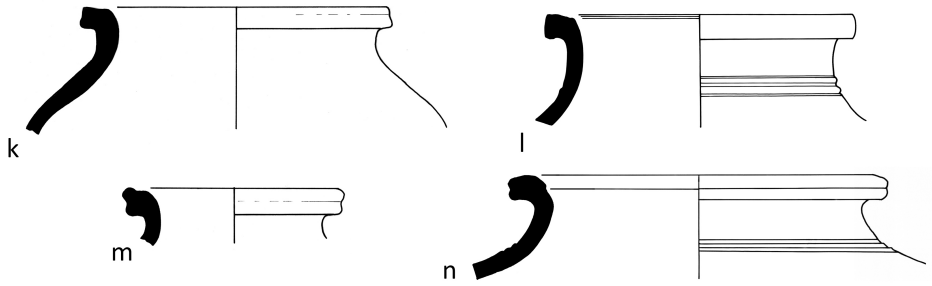
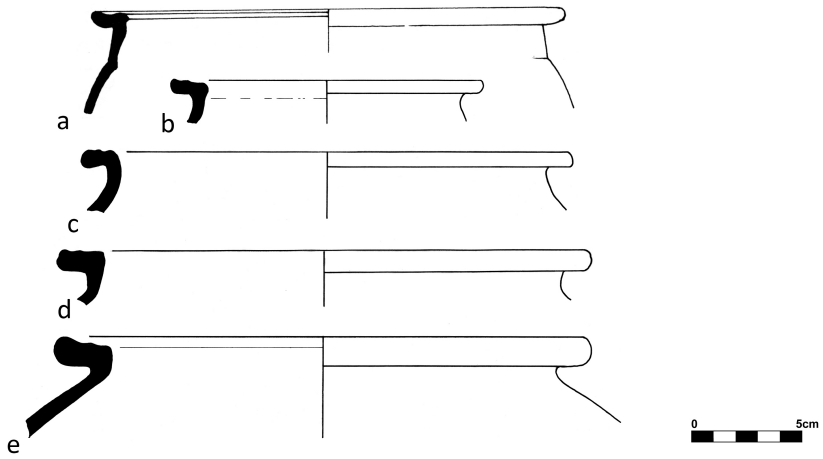


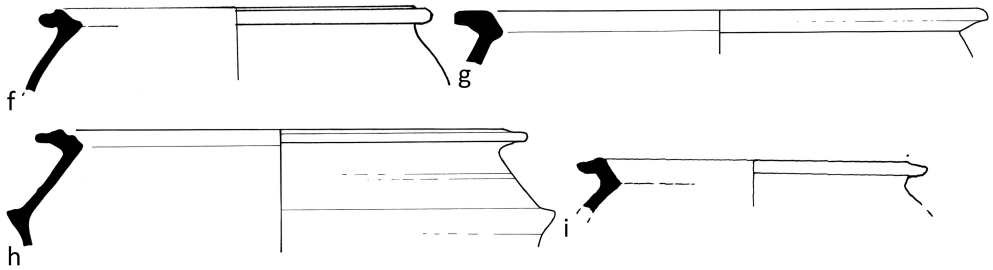
Figure 185 *a-e = IND-CR6; f-j = IND-CR7; k-n = IND-CR8*

Figure 185						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	IND-CR6	HARMIC	Williamson/ H82		14407	1:3
b	IND-CR6	HARMIC	Sohar	Kervran, 2004: fig. 18 Gr. 1: 1	1547.1	1:3
c	IND-CR6	HARMIC	Williamson/ H20T		17074	1:3
d	IND-CR6	HARMIC	Williamson/ H64		14085	1:3
e	IND-CR6	HARMIC	Williamson/ H17A		14386	1:3
f	IND-CR7	BUFRAB	Siraf		2007.6001,1035	1:3
g	IND-CR7	BUFRAB	Siraf		2007.6001,1162	1:3
h	IND-CR7	BUFRAB	Siraf		2007.6001,2805	1:3
i	IND-CR7	BUFRAB	Siraf		2007.6001,6763	1:3
j	IND-CR7	BUFRAB	Siraf		2007.6001,8132	1:3
k	IND-CR8	BUFRAB	Siraf		2007.6001,4629	1:3
l	IND-CR8	BUFRAB	Williamson/ J11		14255	1:3
m	IND-CR8	BUFRAB	Siraf		2007.6001,5906	1:3
n	IND-CR8	BUFRAB	Williamson/ AE2		259	1:3

IND-CR9 - BUFRAB



IND-CR10 - BUFRAB



IND-CR11 - BUFRAB

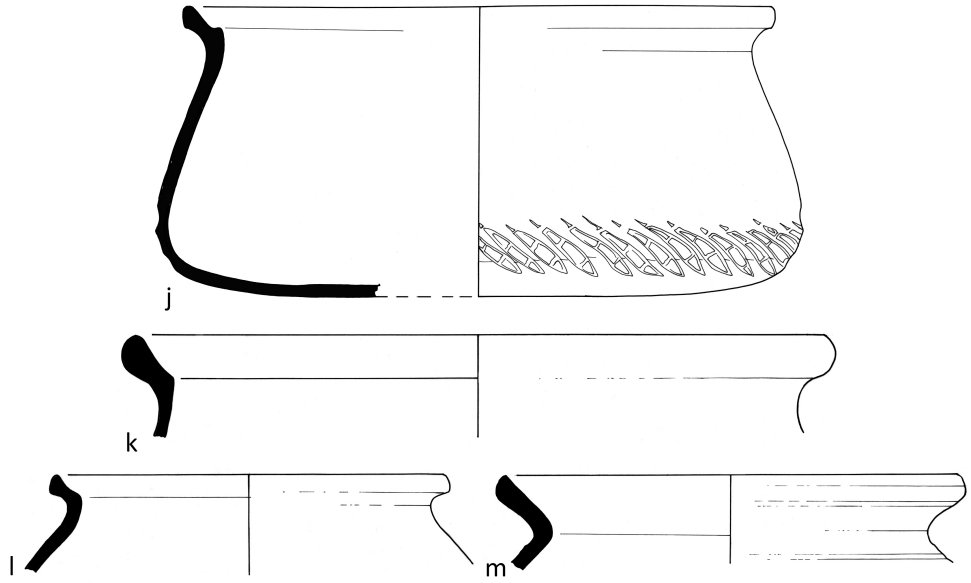


Figure 186 *a-e = IND-CR9; f-i = IND-CR10; j-m = IND-CR11*

Figure 186						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	IND-CR9	BUFRAB	Sohar	Kervran, 2004: fig. 23: 21	606.2	1:3
b	IND-CR9	BUFRAB	Siraf		2007.6001,4038	1:3
c	IND-CR9	BUFRAB	Siraf		2007.6001,8812	1:3
d	IND-CR9	BUFRAB	Siraf		2007.6001,5825	1:3
e	IND-CR9	BUFRAB	Siraf		2007.6001,3801	1:3
f	IND-CR10	BUFRAB	Sohar	Kervran, 2004: fig. 26: 5	1522.4	1:3
g	IND-CR10	BUFRAB	Siraf		2007.6001,1250	1:3
h	IND-CR10	BUFRAB	Siraf		2007.6001,4416	1:3
i	IND-CR10	BUFRAB	Sohar	Kervran, 2004: fig. 30: 6	2186	1:3
j	IND-CR11	BUFRAB	Siraf		2007.6001,9434	1:3
k	IND-CR11	BUFRAB	Siraf		2007.6001,6750	1:3
l	IND-CR11	BUFRAB	Siraf		2007.6001,963	1:3
m	IND-CR11	BUFRAB	Siraf		2007.6001,9610	1:3

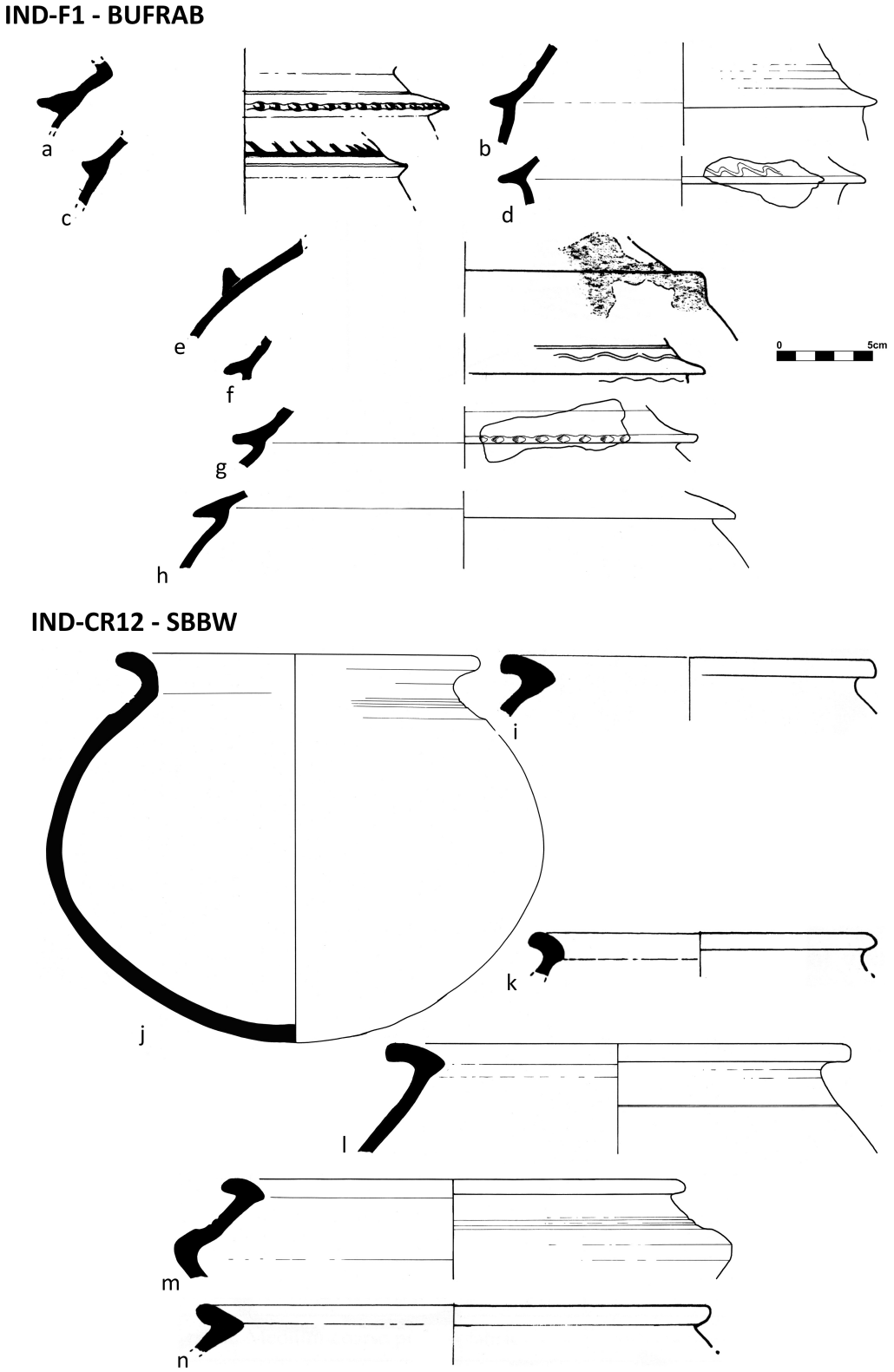
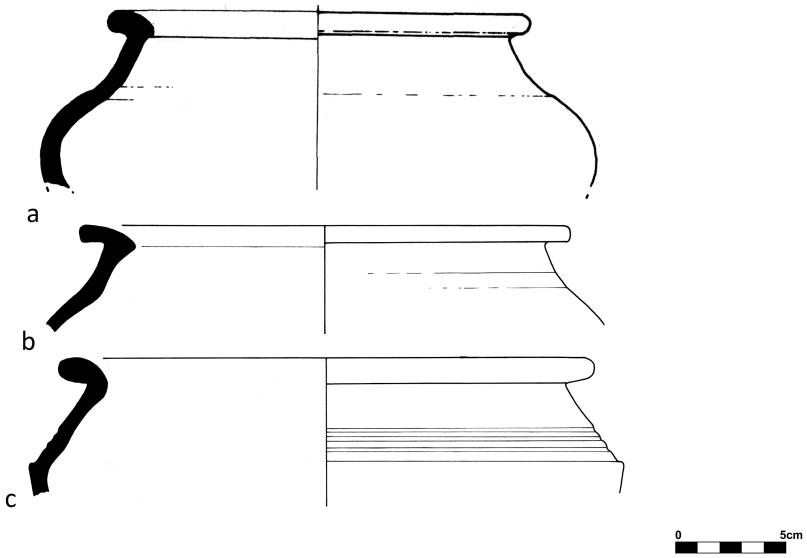


Figure 187 *a-h = IND-F1; i-n = IND-CR12*

Figure 187						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	IND-F1	BUFRAB	Sohar	Kervran, 2004: fig. 30: 11	1169.4	1:3
b	IND-F1	BUFRAB	Sohar	Kervran, 2004: fig. 30: 12	1172.6	1:3
c	IND-F1	BUFRAB	Siraf		2007.6001,6460	1:3
d	IND-F1	BUFRAB	Siraf		2007.6001,667	1:3
e	IND-F1	BUFRAB	Sohar	Kervran, 2004: fig. 14: 9	636.7	1:3
f	IND-F1	BUFRAB	Sohar	Kervran, 2004: fig. 14: 10	646.6	1:3
g	IND-F1	BUFRAB	Siraf		2007.6001,733	1:3
h	IND-F1	BUFRAB	Siraf		2007.6001,6440	1:3
i	IND-CR12	SBBW	Sohar	Kervran, 2004: fig. 24: 3	1533.1	1:3
j	IND-CR12	SBBW	Siraf		2007.6001,9858	1:3
k	IND-CR12	SBBW	Sohar	Kervran, 2004: fig. 9: 9	693.2	1:3
l	IND-CR12	SBBW	Siraf		2007.6001,6758	1:3
m	IND-CR12	SBBW	Siraf		2007.6001,7952	1:3
n	IND-CR12	SBBW	Sohar	Kervran, 2004: fig. 12: 12	648.1	1:3

IND-CR12 - SBBW



IND-CR13 - IRAB

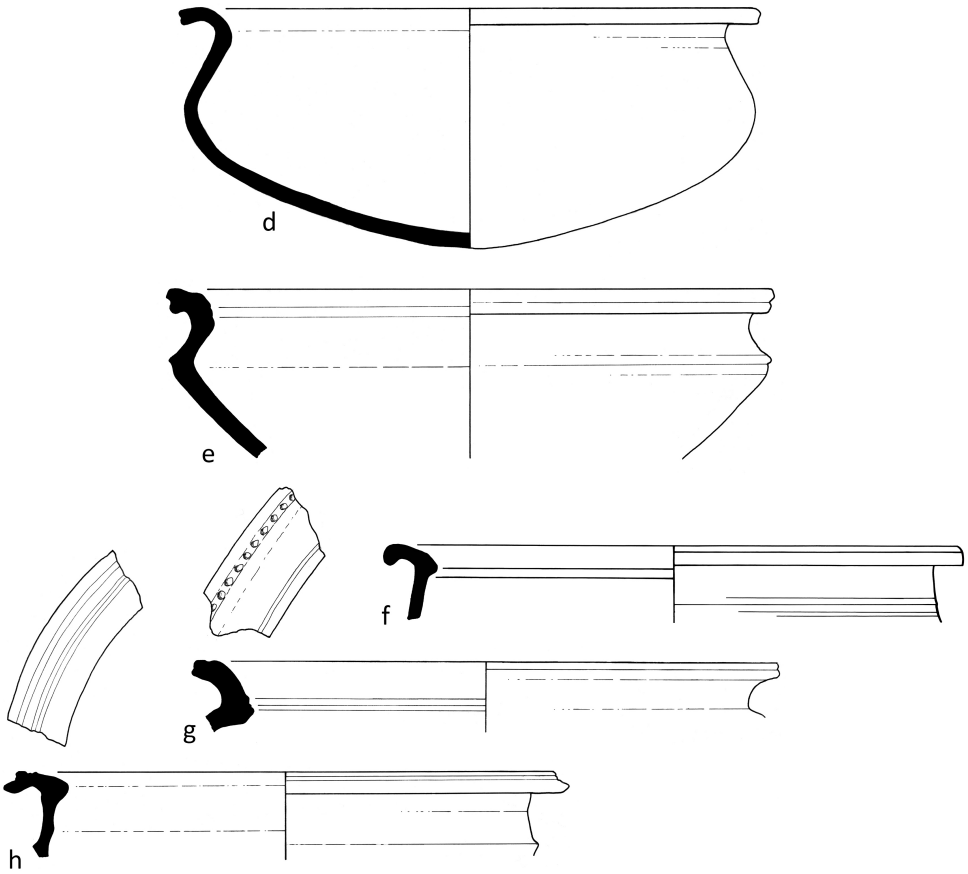


Figure 188 *a-c = IND-CR12; d-h = IND-CR13*

Figure 188						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	IND-CR12	SBBW	Sohar	Kervran, 2004: fig. 14: 11	644.6	1:3
b	IND-CR12	SBBW	Siraf		2007.6001,4514	1:3
c	IND-CR12	SBBW	Siraf		2007.6001,5767	1:3
d	IND-CR13	IRAB	Siraf		2007.6001,5843	1:3
e	IND-CR13	IRAB	Siraf		2007.6001,2534	1:3
f	IND-CR13	IRAB	Williamson/ K10		3581	1:3
g	IND-CR13	IRAB	Siraf		2007.6001,5872	1:3
h	IND-CR13	IRAB	Siraf		2007.6001,444	1:3

IND-CR13 - IRAB

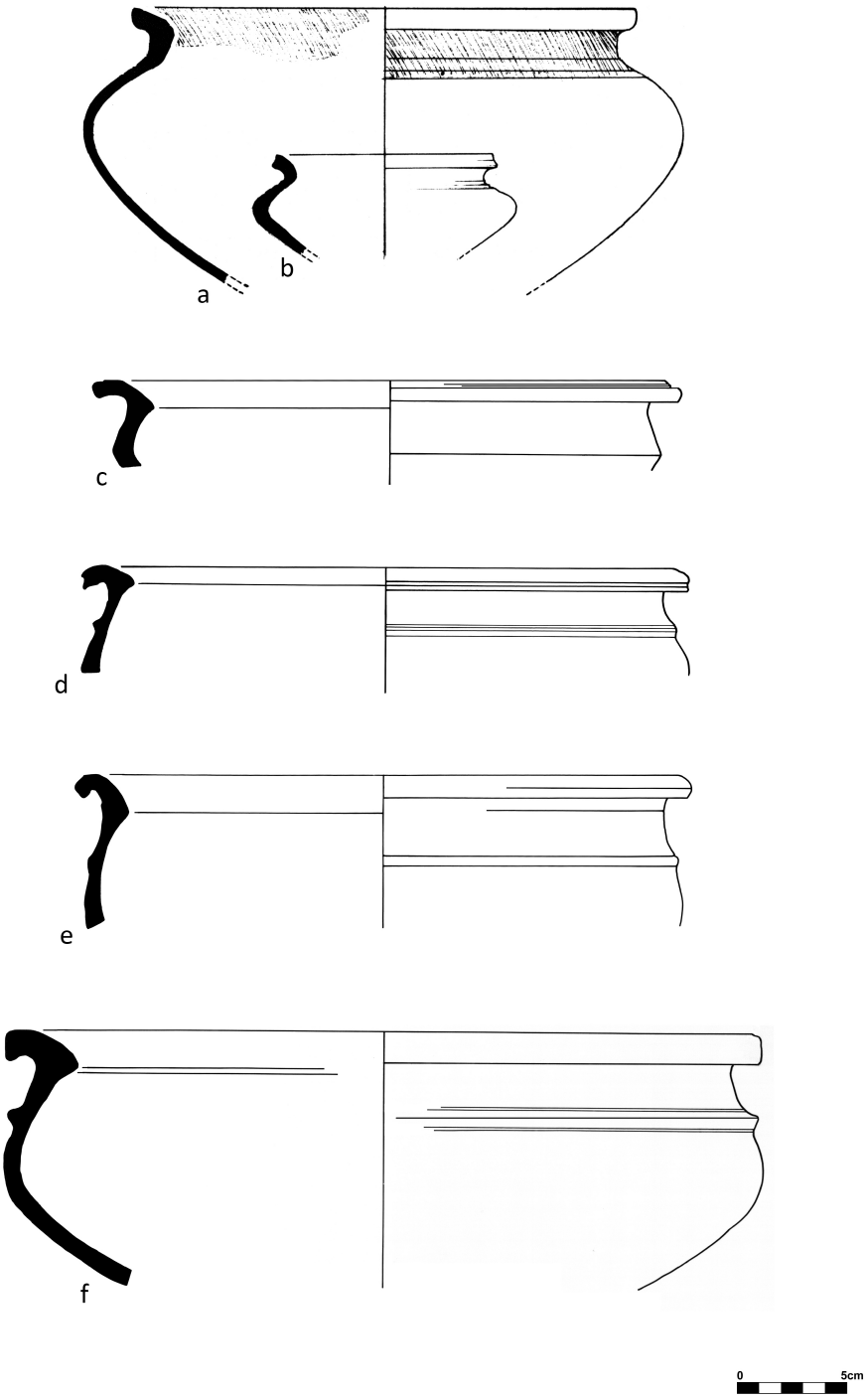
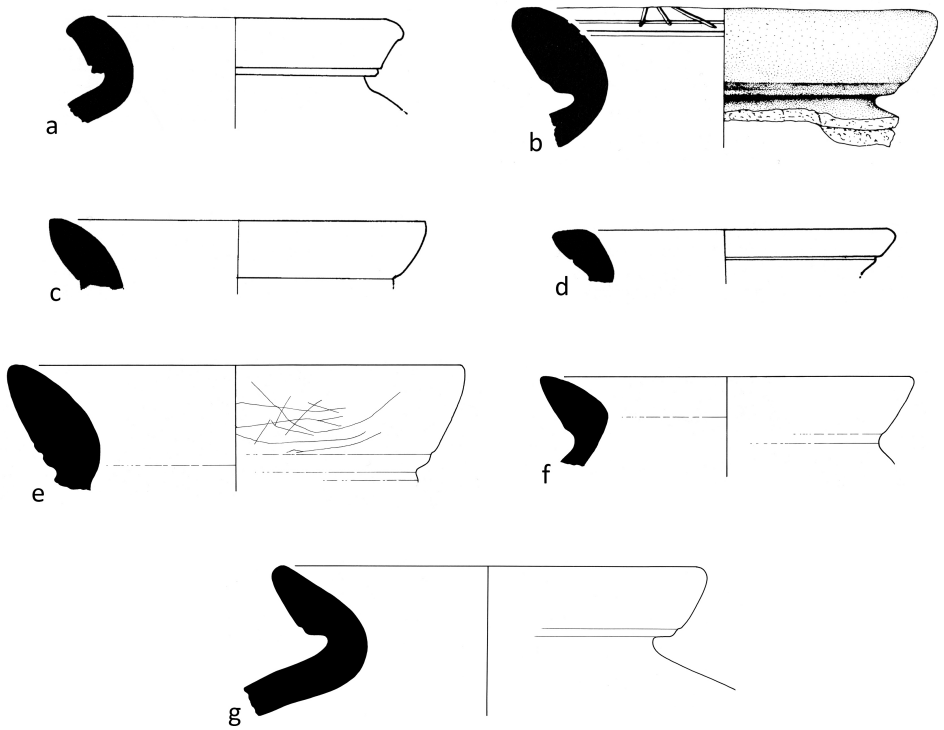


Figure 189 *a-f = IND-CR13*

Figure 189						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	IND-CR13	IRAB	Sohar	Kervran, 2004: 36: 19	2078.15	1:3
b	IND-CR13	IRAB	Sohar	Kervran, 2004: 36: 20	2080.1	1:3
c	IND-CR13	IRAB	Williamson/ AE2		294	1:3
d	IND-CR13	IRAB	Williamson/ K103		4362	1:3
e	IND-CR13	IRAB	Williamson/ AE2		248	1:3
f	IND-CR13	IRAB	Williamson/ K103		250	1:3

IND-CR14 - LINVES



IND-CR15 - LINVES

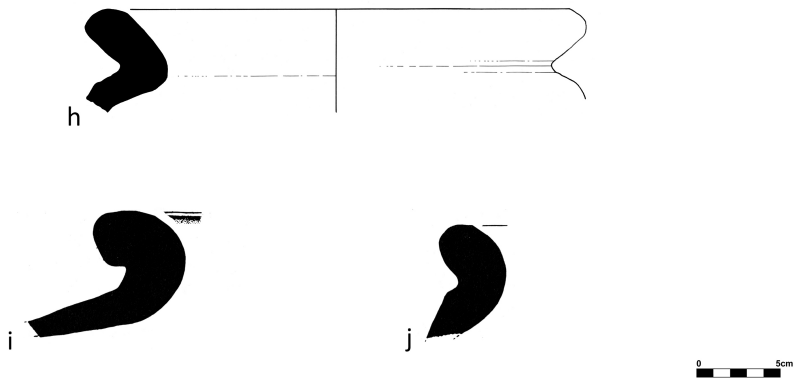


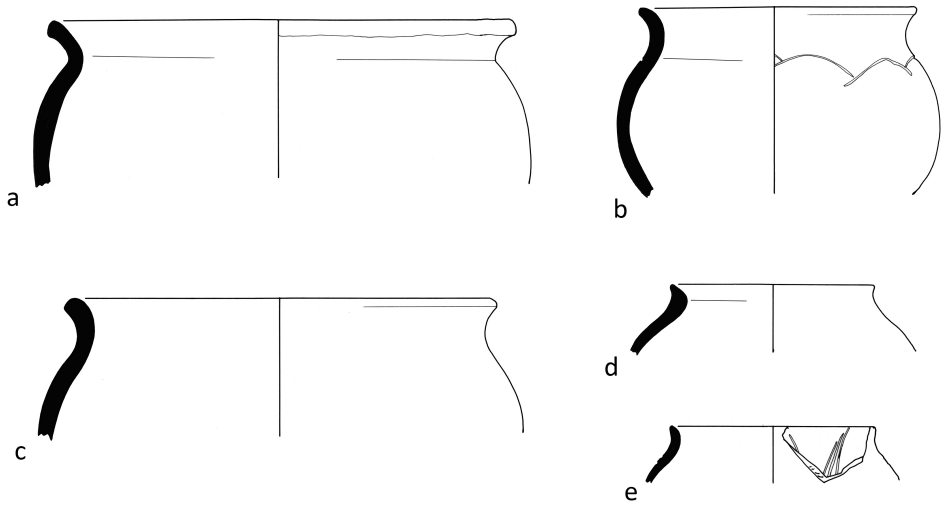
Figure 190 *a-g = IND-CR14; h-j = IND-CR15*

Figure 190						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	IND-CR14	LINVES	Sohar	Kervran, 2004: fig.11: 17	664.2	1:4
b	IND-CR14	LINVES	Manda	Chittick, 1984: fig. 44: a		1:4
c	IND-CR14	LINVES	Sohar	Kervran, 2004: fig.11: 18	649	1:4
d	IND-CR14	LINVES	Sohar	Kervran, 2004: fig. 18, Gr. 3: 3	1547.3	1:4
e	IND-CR14	LINVES	Siraf		2007.6001,3072	1:4
f	IND-CR14	LINVES	Siraf		2007.6001,1417	1:4
g	IND-CR14	LINVES	Siraf		2007.6001,1796	1:4
h	IND-CR15	LINVES	Siraf		2007.6001,6461	1:4
i	IND-CR15	LINVES	Manda	Chittick, 1984: fig. 44: b		1:4
j	IND-CR15	LINVES	Manda	Chittick, 1984: fig. 44: c		1:4

EAF – East African

Type	Form	Class(es)	Illustration	Concordance	Description
EAF-CR1	Cooking pot	EACOP	Fig. 191: a-e		Simple, rolled, 'S' shaped rim profile, with a rounded or pointed lip
EAF-OR1	Cooking Bowl	EACOP	Fig. 191: f-g		Hemispherical form, squared lip

EAF-CR1 - EACOP



EAF-OR1 - EACOP

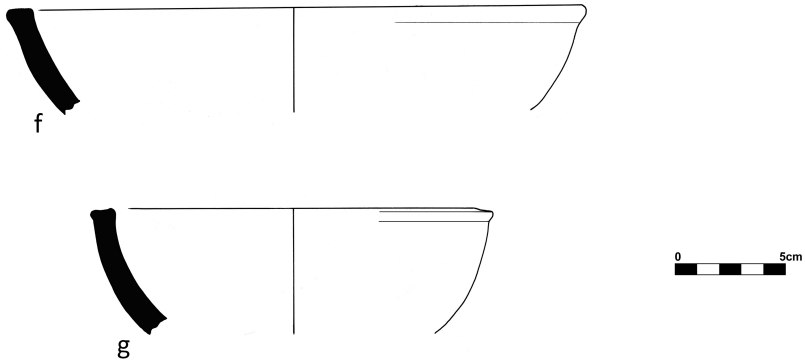


Figure 191 *a-e = EAF-CR1; f-g = EAF-OR1*

Figure 191						
	Type	**Class**	**Site**	**Source**	**Find No.**	**Scale**
a	EAF-CR1	EACOP	Siraf		2007.6001,3839	1:3
b	EAF-CR1	EACOP	Siraf		2007.6001,7848	1:3
c	EAF-CR1	EACOP	Siraf		2007.6001,7452	1:3
d	EAF-CR1	EACOP	Siraf		2007.6001,8304	1:3
e	EAF-CR1	EACOP	Siraf		2007.6001,8376	1:3
f	EAF-OR1	EACOP	Siraf		2007.6001,2491	1:3
g	EAF-OR1	EACOP	Siraf		2007.6001,2495	1:3

Kush/al-Mataf Concordance Tables

No	Kush Class	IOPC Class	Class Name	Comments
1	TURQ.1	TURQ.YG	Turquoise Glaze - Mustard Yellow Glaze	Mostly TURQ.YG, some TURQ.T
1	TURQ.2		Turquoise Glaze - White Glaze Soft Body	
1	TURQ.3	TURQ.T	Turquoise Glaze - White Glaze Hard Body	TURQ.4 is characteristically associated with Types TUR-OR5 (Type 72) and TUR-OR8
1	TURQ.4		Turquoise Glaze - Green Glaze	
1	TURQ.5		Turquoise Glaze - Blue Glaze	
1	TURQ		Turquoise Glaze	
1	TURQ.NRE		Turquoise Glaze - Not Re-Examined	
2	YBTIN	OPAQ.W	Plain Opaque White Glaze	
3	COBALT	OPAQ.TS	Cobalt-Decorated White Glaze	Includes some OPAQ.TBS & OPAQ.T
4	BTIN	OPAQ.BW	Black Decorated Tin Glaze	
5	SPLASH	SPLASH#	Splashed	
6	YSPLASH	SPLASH.P2	Bright Yellow Splash	
7	LUSTRE	OPAQ.L#	Lustre	
8	EGRAF	GRAF.EP2	Early Sgraffiato	
9	HGRAF	GRAF.H	Hatched Sgraffiato	
10	YGRAF	GRAF.EY	Yellow Sgraffiato	Includes some GRAF.EP
11	GGRAF	GRAF.G	Monochrome Green Sgraffiato	
12	MGRAF	GRAF.M	Monochrome Mustard Sgraffiato	Includes some MONO.Y
13	BGRAF	GRAF.N-ID	Two-Tone Sgraffiato	
15	DGRAF		Degraded Sgraffiato	
14	PGRAF	GRAF.LP	Polychrome Sgraffiato	Also includes some GRAF.GYB
16	CHAMP	CHAMP	Champlevé	
17	LGJARS	MONO.G	Large Glazed Jars	
35	GMONO.1		Monochrome Green Glaze	
18	FRIT.F	FRIT.EM	Fine Frit	
19	FRIT.W		White Frit	
21	FRIT.T		Turquoise Frit	
23	FRIT.C		Cobalt Frit	
20	FRIT.L	FRIT.L	Frit Lustre	
22	FRIT.B	FRIT.LM	Coarse Frit	
24	FRIT.TB	FRIT.TB	Turquoise and Black Underglaze-Painted Frit	
25	FRIT.BW	FRIT.BW	Blue-and White Frit	
26	FRIT.DEG	FRIT.N-ID	Degraded Frit	
27	MGPAINT.1	MGPAINT-1	Manganese Purple Underglazed-Painted	
27	MGPAINT.2	MGPAINT-2	Manganese Purple Underglazed-Painted	
28	YEMEN	YEMEN	Yemeni Yellow	
29	MGTURQ	UGP.TB	Turquoise & Manganese	
30	PERSIA	SPECLE.2	Persian Blue Speckled	May include some SPECLE.1 also
31	KHUNJ	KHUNJ	Khunj or Bahla Ware	
32	DKHUNJ		Dark Khunj	

No	Kush Class	IOPC Class	Class Name	Comments
33	LGREEN		Light Green-Glazed/Creamy Imitation Celadon	
34	MUSTARD		Mustard Glaze	
35	GMONO.2	MONO.LG2	Monochrome Green Glaze	
36	REDYEL	REDYEL	Red Yellow Ware	
37	WILLOW	RWW	European China	
38	BWEARTH	UGP.BW	Blue-and-White Earthenware	
39	BLACK		Black-Glazed Earthenware	
40	IMITCEL		Imitation Celadon	
41	UNDERGL	UGP	Underglaze-Painted Earthenware	
42	MOTTLE		Mottled Green Monochrome	
43	IRONGL	STONE-EU?	Iron-Glazed Storage Jars	
44	UNCLASS-G	GW.N-ID	Unclassified Glazed	
45	UNIQG		Unique Glazed	
46	CHANG	CHANG	Changsha Polychrome Underglaze-Painted Stoneware	
47	YUEC	YUE.1-4	Yue Ware	
48	GWW	WW	South Chinese White Stoneware (Song)	
49	GGW		Yue-type Wares	
54	WHT		Unidentified Whiteware	
62	WPORC		White Porcelain	
51	CWW	CWW	Carved White-Stoneware Lotus Bowls	
52	DHM	DEHUA	Dehua Moulded Whiteware	
53	DHP		Dehua Plain Whiteware	
55	LQC	LQC	Longquan Celadon	
56	SCHINA	STONE-GRY	Thai or South China Celadons	
		STONE-BUR		
		STONE-THAI		
50	GRE	FE.N-ID	Unidentified Greenware	
57	CEL		Unidentified Celadon	
61	GBSTONE		Grey-Bodied Dark Glazed Stoneware	
73	CHIN		Unclassified Far Eastern	
58	DUSUN	DUSUN	Dusun	
59	MTB	MTB-1	Martaban	
60	BSTONE	MTB-2	Light Brown-Glazed Stoneware	
63	EASTIN	OPREW	Far Eastern White Glaze	
64	CBW	CBW	Chinese Blue-and-White Porcelain	
67	SWATOW		Swatow	
68	KRAAK		Kraak or 'Panelled Wares'	
65	NONCHIN	VBW	Non-Chinese Porcelain	
66	VIET		Vietnamese Blue-and-White	
69	POLY		Polychrome-Glazed	
70	VPOLY		Vietnamese Polychrome	
71	ENAM	ENAM	Enamelled Porcelain	
72	MOD		Modern Porcelain	
74	JULFAR.1	JULFAR.RW	Julfar Ware (White-Washed and Red Painted)	
74	JULFAR.2	JULFAR.PB	Julfar Ware (Dark Fabric with Purple Paint)	
74	JULFAR.3	JULFAR	Julfar Ware (Buff Body with Red Paint)	
74	JULFAR.4		Julfar Ware (Dark Fabric no Paint)	
85	THIN		Thin Black	

No	Kush Class	IOPC Class	Class Name	Comments
74	JULFAR.5	CHAM	Early Julfar Ware	
87	PROTO		Proto Julfar	
75	WHITE.C	WHITE.PI	White Ware - Coarse	Includes some WHITE.M
75	WHITE.F		White Ware - Fine	
75	WHITE.NRE		White Ware - Not Re-Examined	
76	BEARTH	HARLIM [LISV]	Black-Fired Earthenware	Possibly ridged LISV body sherds
77	LISV		Large Incised Storage Vessels	Large vessel types, Includes some FINLIM
78	RBSLIP	REBROS	Red-Black Slip	
79	LIME	LIME	Lime-Tempered	
80	HONEY	HONEY	Honeycomb	
81	HONEYF		Honeycomb Fabric	
82	CHOC	CHOC	Chocolate Chip	
83	WPINK		Pink and White	
84	BUFF		Buff	
86	LSANDY		Large Sandy White Storage	
88	EGG	EGG.PI	Eggshell	Includes some WHITE.PI
88	EGG.NRE		Eggshell - Not Re-Examined	
89	RED.EGG	EGG.R	Red Eggshell	
90	FOPW	FOPW.2	Fine Orange Painted Ware	
90	FOPW.2	FOPW.1	Fine Orange Painted Ware - Coarse	
91	CLINKY	CLINKY	Clinky Fired Earthenware	
92	FLAKEY	FLAKEY	Flakey Earthenware	Possibly similar to ORGPIN but not related
93	TORP	TORP-S	Torpedo Jars	
94	SMAG	HARLIM	Small Grey Vessels	Small vessel types
95	SPOT	SPOT	Spotty Ware	
95	SPOT.C		Spotty Ware - Coarse	
95	SPOT.F		Spotty Ware - Fine	
97	REDSPEC		Red Speckled Ware	Same as SPOT but fired to red
96	WAPO	WAPO	Cream Pots with Incised Wavy Decoration	
98	UNCLASS-U	CW.N-ID	Unglazed Unclassifiable Sherds	
99	UNIQU		Unique Unglazed Sherds	
107	SPECIAL		Special Category	Does not state in text whether glazed or u/g
100	IRPW	IRPW	Indian Red Polished	
101	SBBW	SBBW	Shiny Black Burnished Ware	
102	FIRE	HARMIC	Fine Indian Red	Possibly mostly body sherds of HARMIC
103	IRAB	IRAB	Indian Red & Black	Most material should be assigned elsewhere

No	Kush Class	IOPC Class	Class Name	Comments
104	PAINT	BRISAN	Painted Indian Earthenware	Also includes some HARMIC
105	RSLIP		Coarse Red-Slipped	
106	INDIA	INCOP	Unclassified Indian Ware	

Table 4 *Kush/al-Mataf class categories and their corresponding class codes listed within the Indian Ocean pottery classification*

Type	IOPC Type	Class(es)	Kennet, 2004:
Type 1		WAPO	fig. 39
Type 2		IRAB	fig. 40
Type 4		HARLIM	fig. 37
Type 25	TUR-OR1 and SGR-OR11	TURQ.T, GRAF#, MONO.G	figs 5, 9, 14
Type 26	SGR-OR9 and GGW-OR8	GRAF#, MGPAINT-1	figs 9, 12
Type 27		GRAF#	fig. 9
Type 28	SGR-OR1	GRAF#	fig. 9
Type 29		MONO.G	fig. 14
Type 31	GGW-OR8	MGPAINT-1	fig. 12
Type 32		MGPAINT-1	fig. 12
Type 33 (1)	TUR-OR4	TURQ.T	fig. 5
Type 33 (2)		GRAF#	fig. 8
Type 35	SGR-OR5	GRAF#	fig. 8
Type 36	SGR-OR2	GRAF#	fig. 8
Type 41		YEMEN	fig. 13
Type 42		YEMEN	fig. 13
Type 43		FRIT.E#	fig. 10
Type 46	SAM-OR2	GRAF.E#	fig. 7
Type 47	FRI-OR1	FRIT.E#	fig. 10
Type 58		HARLIM	fig. 37
Type 61	TUR-OR17 and SAM-OR19	OPAQ#	fig. 7
Type 62	TUR-OR2	TURQ.T	fig. 5
Type 64	TUR-CR13	TURQ.YG	fig. 5
Type 65		GRAF.E#	fig. 7
Type 67	EGG-CR8	EGG.PI	fig. 28
Type 68		EGG.PI	fig. 28
Type 72	TUR-OR5	TURQ.T	fig. 5
Type 74	TOR-CR1	TORP-S	fig. 36
Type 75	HAR-CR3	HARLIM	fig. 37
Type 76	HAR-CR4	HARLIM	fig. 37
Type 78		IRAB	fig. 40
Type 81	HAR-CR1	CLINKY	fig. 35
Type 86		HARLIM	fig. 35
Type 87		HARLIM	fig. 35
Type 89	FOP-OR1	FOPW.2	fig. 34
Type 94	TUR-OR3	TURQ.YG	fig. 5
Type 101	GGW-OR1	FRIT#, UGP	figs 10-11
Type 104	GGW-OR8	UGP, MONO.LG1-2	figs 11, 14
Type 105	LIM-CR1	LIME	fig. 31
Type 106		UGP	fig. 11
Type 107		UGP, LQC	figs 11, 18

Type	IOPC Type	Class(es)	Kennet, 2004:
Type 109	WHI-CR1	WHITE.PI	fig. 28
Type 110		WHITE.PI	fig. 28
Type 111		FRIT#, UGP, MONO.LG1-2, LQC	figs 10-11, 14, 18
Type 112		FRIT#, UGP	figs 10-11
Type 114	GGW-OR8	UGP, LQC	figs 11, 18
Type CP0.1		JULFAR	fig. 19
Type CP0.2		JULFAR	fig. 19
Type CP0.3		JULFAR	fig. 19
Type CP1.1	JUL-CR1.1	JULFAR	fig. 21
Type CP1.2	JUL-CR1.2	JULFAR	figs 20-21
Type CP1.5		JULFAR	fig. 21
Type CP2.1		JULFAR	fig. 21
Type CP2.2		JULFAR	fig. 21
Type CP2.8		JULFAR	fig. 23
Type CP4.1		JULFAR	fig. 23
Type CP4.2		JULFAR	fig. 23
Type CP4.3		JULFAR	fig. 23
Type CP4.4		JULFAR	fig. 24
Type CP4.5		JULFAR	fig. 24
Type CP5.1		JULFAR	fig. 24
Type CP5.2		JULFAR	fig. 24
Type CP5.3		JULFAR	fig. 24
Type CP6.1	JUL-CR6.1	JULFAR	fig. 20
Type CP7.1		JULFAR	fig. 24
Type B1.1	JUL-OR1.1	JULFAR	fig. 22
Type B1.4	JUL-OR1.4	JULFAR	fig. 22
Type B5.1		JULFAR	fig. 25
Type B6.1		JULFAR	fig. 25
Type B7.1		JULFAR	fig. 25
Type J2.1	JUL-CR9	JULFAR	fig. 22
Type J2.3	JUL-CR9	JULFAR	fig. 22
Type J3.1		JULFAR	fig. 25
Type J4.1		JULFAR	fig. 25
Type P1.3		JULFAR	fig. 25
Type P2.2		JULFAR	fig. 25

Table 5 *Kush/al-Mataf form types and their corresponding type codes listed within the Indian Ocean pottery classification*

Sources

Abraham, S.A. 2009. 'Strategies for surface documentation at the Early Historic site of Pattanam, Kerala: the Malabar region archaeological survey', in R. Tomber, L. Blue and S. Abraham (eds) *Migration, Trade and Peoples, Part 1: Indian Ocean Commerce and the Archaeology of Western India*, British Association for South Asian Studies, London, 14–28.

Abu-Lughod, J.L. 1989. *Before European Hegemony. The World System A.D. 1250–1350*, Oxford University Press, New York/London.

Adams, R. McC. 1962. 'Agriculture and urban life in early southwestern Iran', *Science* 136, 109–22.

1965. *The Land Behind Baghdad. A History of Settlement in the Diyala Plain*, Chicago University Press, Chicago.

1970. 'Tell Abū Sarīfa. A Sassanian – Islamic ceramic sequence from south central Iraq', *Ars Orientalis* 8, 87–119.

1981. *Heartland of Cities. Surveys of Ancient Settlement and Land Use on the Central Floodplain of the Euphrates*, Chicago University Press: Chicago.

Agius, D.A. 2008. *Classic Ships of Islam: from Mesopotamia to the Indian Ocean*, Brill, Leiden/Boston.

Alden, J.R. 1978. 'Excavations at Tal-i Malyan, Part 1, a Sasanian kiln', *Iran* 16, 79–86.

Aldsworth, F. 2005. 'History of archaeological surveys in Siraf port', in *Proceedings of the International Congress of Siraf Port, November 14 – 16, 2005, Bushehr – Iran*, Bushehr Branch of Iranology Foundation and Bushehr University of Medical Sciences, Bushehr, 8–27.

Allan, J. 1981. *Islamic Ceramics, Eastern Ceramics and Other Works of Art from the Collection of Gerald Reitlinger*, Ashmolean Museum, Oxford.

1987, 'Forward', in J.W. Allan and C. Roberts (eds) *Syria and Iran. Three Studies in Medieval Ceramics*, Oxford Studies in Islamic Art 4, 7–8.

1991. *Islamic Ceramics*, Ashmolean Museum, Oxford.

Allan J. de V. 1982. 'The "Shirazi" problem in East African coastal history', *Paideuma* 28, 9–27.

Allan, T. 1982. 'Review of 'Siraf III: the congregational mosque' by D. Whitehouse', *Ars Orientalis* 13, 188–9.

Allchin, F.R. (ed.) 1995. *The Archaeology of Early Historic South Asia. The Emergence of Cities and States*, Cambridge University Press, Cambridge.

Anon. 1979. *Oman, A Seafaring Nation*, Ministry of Information and Culture, Sultanate of Oman, Muscat.

1983. *Siraf Survey Maps 1–6*, British Institute of Persian Studies, London.

1985. *Ceramic Finds from Tang and Song Kilns in Guangdong*, Fung Ping Shan Museum and University of Hong Kong, Hong Kong.

2006. *Shinan Wreck*, Vols. 1–2, National Maritime Museum of Korea, Mokpo.

2007. *Jiangxi Provincial Institute of Cultural Relics and Archaeology, Jindezhen Museum of Civilian Kiln*, Cultural Relics Press, Beijing.

2011. *Sailing Directions (Enroute), Pub. 172. Red Sea and the Persian Gulf*, 17th Edition, National Geospatial-Intelligence Agency, Virginia.

Ansari, Z.D. and Mate, M.S. 1966. *Excavations at Dwarka*, Deccan College, Pune.

Appadurai, A. 1986 'Commodities and the politics of value', in A. Appadurai (ed.) *The Social Life of Things. Commodities in the Social Perspective*, Cambridge University Press, Cambridge, 3–63.

Avanzini, A. 2002. *Khor Rori 1*, Arabia Antica, Pisa.

Azarnoush, M. 1994. *The Sasanian Manor House at Hajiabad, Iran*, Firenze, Le Lettere.

Batten, B.L. 2006. *Gateway to Japan: Hakata in War and Peace, 500–1300*, University of Hawaii Press.

Baumhoff, M.A. and Heizer, R.F. 1959. 'Some unexploited possibilities in ceramic analysis', *Southwestern Journal of Anthropology* 15(3), 308–16.

Beaujard, P. 2005. 'The Indian Ocean in Eurasian and African world-systems before the sixteenth century', *Journal of World History* 16(4), 411–65.

2010. 'From three possible Iron-Age world-systems to a single Afro-Eurasian world-system', *Journal of World History* 21(1), 1–43.

Begley, V. 1983. 'Arikamedu reconsidered', *American Journal of Archaeology* 87, 461–81.

Bellanger, L., Husi, P.H. and Tomassone, R. 2006. 'Statistical aspects of pottery quantification for the dating of some archaeological contexts', *Archaeometry* 48(1), 169–83.

Bennison, A.K. 2009. *The Great Caliphs. The Golden Age of the 'Abbasid Empire*, I.B. Tauris, London/New York.

Bénoist, A., Mouton, M. and Schiettecatte, J. 2003. 'The artefacts from the fort at Mleiha: distribution, origins, trade and dating', *Proceedings of the Seminar for Arabian Studies* 33, 59–76.

Bernard, V. and Salles, J.-F. 1991 'Discovery of a Christian church at al-Qusur, Failaka (Kuwait)', *Proceedings of the Seminar for Arabian Studies* 21, 7–21.

Bhan, K.K. 2006. 'Towards an understanding of medieval glazed pottery manufacture from Lashkarshah Khambat, Gujarat', *Man and Environment* XXXI(2), 90–5.

Bintliff, J. 1999. 'Regional field surveys and population cycles', in J. Bintliff and K. Sbonias (eds) *Reconstructing Past Population Trends in Mediterranean Europe*, The Archaeology of Mediterranean Landscapes, Vol. 1, Oxbow, Oxford, 21–33.

Bivar, A.D.H. 1970. 'Trade between China and the Near East in the Sasanian and Early Islamic periods', in W. Watson (ed.) *Pottery and Metalwork in T'ang China*, Colloquies on Art and Archaeology in Asia, 1: 1–8.

2000. *Excavations at Ghubayrā, Iran*, School of Oriental and African Studies, London.

Blair, A., Kennet, D. and al-Duwīsh, S. 2012 'Investigating an early Islamic landscape on Kuwait Bay: the archaeology of historical Kadhima', *Proceedings of the Seminar for Arabian Studies* 42, 13–26.

Blake, H. 1980. 'Technology, supply or demand', *Medieval Ceramics* 4, 3–12.

Bloice, B.J. 1971. 'Note', in G.J. Dawson (ed.) Montague Close part 2, *London Archaeologist* 1(11), 250–1.

de Blois, F. 1986. 'The 'Abu Sa'idis or so-called "Qarmatians" of Bahrayn', *Proceedings of the Seminar for Arabian Studies* 16, 13–21.

Brainerd, G. 1951. 'The place of chronological ordering in archaeological analysis', *American Antiquity* 16(4), 301–12.

Brughmans, T. and Poblome, J. 2016. 'Roman bazaar or market economy? Explaining tableware distributions through computational modelling', *Antiquity* 90(350), 393–408.

Bohingamuwa, W. 2017. *Sri Lanka and the Indian Ocean Contacts: International Networks and External Connections*, Unpublished DPhil Thesis, University of Oxford, Oxford.

Bowman, A. and Wilson, A. (eds) 2009. *Quantifying the Roman Economy. Methods and Problems*, Oxford University Press, Oxford.

Brucks, G.B. 1856. *Memoir Descriptive of the Navigation of the Gulf of Persia; with Brief Notices of the Manners, Customs, Religion, Commerce, and Resources of the People Inhabiting its Shores and Islands*, Selections from the Records of the Bombay Government XXIV (New Series), Bombay, 531–634.

Caiger-Smith, A. 1985. *Lustre Pottery. Technique, Tradition and Innovation in Islam and the Western World*, Faber and Faber, London.

Cardew, M. 1973. *Pioneer Pottery*, Longman, London.

de Cardi, B. 1972. 'A Sasanian outpost in northern Oman', *Antiquity* 46 (Notes and News), 305–10.

1975. 'Archaeological survey in Northern Oman 1972', *East and West* 25, 9–75.

1985. 'Further archaeological survey in Ras al-Khaimah, U.A.E., 1977', *Oriens Antiquus* 24, 186–91.

Carswell, J. 1991. 'The port of Mantai, Sri Lanka', in V. Begley and R.D. de Puma (eds) *Rome and India. The Ancient Sea Trade*, University of Wisconsin, Wisconsin, 197–203.

1996. 'The excavation of Mantai', in J. Reade (ed.) *The Indian Ocean in Antiquity*, Kegan Paul, London/New York, 501–15.

2013. 'The Chinese, Islamic and other imported pottery', in J. Carswell, S. Deraniyagala and A. Graham (eds) *Mantai – City by the Sea*, Linden Soft Verlag, Aichwald, 229–66.

Carswell, J. Deraniyagala, S., Graham, A. (eds) 2013. *Mantai – City by the Sea*, Linden Soft Verlag, Aichwald.

Carter, R.A. 2005. 'The pottery', in T. Insoll (ed.) *The Land of Enki in the Islamic Era. Pearls, Palms and Religious Identity in Bahrain*, Kegan Paul, London, 108–92, 401–51.

2008. 'Christianity in the Gulf during the first centuries of Islam', *Arabian Archaeology and Epigraphy* 19, 71–108.

Carter, R., Morley, M. & Morse, C. 2011: *Bu Maher Fort, Muharraq. Report on excavations in 2010 for the Ministry of Culture and Information, Bahrain*. Unpublished Report, Ministry of Culture and Information: Bahrain.

Carter, R.A, Challis, K., Priestman, S.M.N. and Tofighian, H. 2006. 'The Bushehr Hinterland. Results of the first season of the Iranian-British archaeological survey of Bushehr province, November-December 2004', *Iran* 44, 63–103.

Carvajal López, J.C. 2017. 'Islamization and trade in the Arabian Gulf in the age of Mohammad and Charlamagne', in J. Moreland, J. Mitchell and B. Leal (eds) *Encounters, Excavations and Argosies. Essays for Richard Hodges*, Archaeopress, Oxford, 73–90.

Casson, L. 1989. *Periplus Maris Erythraei: Text with Introduction, Translation and Commentary*, Princeton University Press, Princeton.

Chase, P.G. 1985. 'Whole vessels and sherds: an experimental investigation of their quantitative relationship', *Journal of Field Archaeology* 12(2), 213–18.

Chaudhuri, K.-N. 1985. *Trade and Civilisation in the Indian Ocean. An Economic History from the Rise of Islam,* Munishiram Manoharlal, New Delhi.

Cherian, P.J. 2011. *Pattanam Archaeological Site: The wharf context and the maritime exchanges*, http://www.themua.org/collections/archive/files/26d829c7ee7983165dbfb9234469cf51.pdf

Cherry, J.F. 1982. 'A preliminary definition of site distribution on Melos', in C. Renfrew and M. Wagstaff (eds) *An Island Polity. The Archaeology of Exploitation in Melos*, Cambridge University Press, Cambridge, 10–23.

Chittick, N. 1966. 'Unguja Ukuu: the earliest imported pottery and an 'Abbasid dinar', *Azania* 1, 161-63.

1967. 'Excavations in the Lamu archipelago', *Azania* 2, 1–31.

1974. *Kilwa. An Islamic Trading City on the East African Coast*, Vols. I–II, British Institute in East Africa, Nairobi.

1984. *Manda. Excavations at an Island Port on the Kenyan Coast*, British Institute in East Africa, Nairobi.

Chittick N. and Tobert, N. 1984. 'Local pottery', in N. Chittick (ed.) *Manda. Excavations at an Island Port on the Kenyan Coast*, British Institute in East Africa, Nairobi, 107–52.

Christensen, A.P. 1993. *The Decline of Iranshahr. Irrigation and Environment in the History of the Middle East 500 BC to AD 1500*, Museum Tusculanum Press, Copenhagen.

Clark, C. and Horton, M. 1985. 'Zanzibar archaeological survey 1984–5', *Azania* 20, 167–71.

Cleuziou, S. and Tosi, M. 1988. *The Join Hadd Project. Summary report on the second season November 1986 – January 1987*, The Join Hadd Project, Rome.

Cleuziou, S. Reade, J. and Tosi, M. 1990. *The Join Hadd Project. Summary report on the third season (October 1987 – February 1988)*, The Join Hadd Project, Paris.

Cleveland, R.L. 1959. 'Preliminary report on archaeological soundings at Sohar', *Bulletin of the American Schools of Oriental Research* 153, 11–19.

Coningham, R. 1999. *Anuradhapura. The British–Sri Lankan Excavations at Anuradhapura Salgaha Watta 2. Volume I: The Site*, Society for South Asian Studies Monograph 3/British Archaeological Reports S824. Archaeopress, Oxford.

2006. *Anuradhapura. The British–Sri Lankan Excavations at Anuradhapura Salgaha Watta 2***.** *Volume II: The Artefacts*, Society for South Asian Studies Monograph 4/ British Archaeological Reports S1508. Archaeopress, Oxford.

Coningham, R and Batt, C. 1999. 'Dating the sequence', in R. Coningham (ed.) 1999: *Anuradhapura. The British–Sri Lankan Excavations at Anuradhapura Salgaha Watta 2. Volume I: The Site*, Society for South Asian Studies Monograph 3/British Archaeological Reports S824. Archaeopress, Oxford, 125–34.

Coningham, R., Ford, L., Cheshire, S. and Yong, R. 2006. 'Unglazed ceramics', in R. Coningham (ed.) *Anuradhapura. The British–Sri Lankan Excavations at Anuradhapura Salgaha Watta 2***.** *Volume II: The Artefacts*, Society for South Asian Studies Monograph 4/ British Archaeological Reports S1508. Archaeopress, Oxford, 127–332.

Costa, P.M. 1981. 'The copper mining settlement of Arja: a preliminary survey', *Journal of Oman Studies* 4, 9–14.

Costa, P.M. and Wilkinson, T.J. 1987. 'The hinterland of Sohar. Archaeological surveys and excavations within the region of an Omani seafaring city', *Journal of Oman Studies* 9, 1–238.

Crone, P. 1980. *Slaves on Horses: The Evolution of Islamic Polity*, Cambridge University Press, Cambridge.

1989, *Pre-Industrial Societies, Anatomy of the Pre-Modern World*, OneWorld (2011 edition), Oxford.

2004. *Meccan Trade and the Rise of Islam*, Gorgias Press, Piscataway.

Crowther, A., Horton, M., Kotarba-Morley, A., Kirkwood, L., Boivin, N., Blair, A., Matheson, C., Prendergast, M., Wood, M. and Wilmsen, E., 2013. *Report on fieldwork at Fukuchani and Unguja Ukuu, Zanzibar, July 18–31, 2011*, Unpublished Report Submitted to the Department of Museum and Antiquities, Zanzibar.

Ciuk, K. 2000. 'Pottery from Parthian, Sasanian, and Early Islamic levels at Nippur, Iraq 1st – 9th century AD', *The Canadian Society for Mesopotamian Studies Bulletin* 35, 57–79.

Ciuk, C. and Keall, E. 1996. *Zabid Project Pottery Manual 1995. Pre-Islamic and Islamic Ceramics from the Zabid Area, North Yemen*, British Archaeological Reports 655 (International Series). Archaeopress, Oxford.

Daryaee, T. 2003. 'The Persian Gulf trade in late antiquity', *Journal of World History* 14(1), 1–16.

2009. 'The Persian Gulf in Late Antiquity: The Sasanian era', in L.G. Potter (ed.) *The Persian Gulf in History*, Palgrave Macmillan, New York, 57–70.

Doe, S.B. 1963. 'Pottery sites near Aden', *Journal of the Royal Asiatic Society*, 150–62.

Egloff, B.J. 1973. 'A method for counting ceramic rim sherds', *American Antiquity* 38(3), 351–53.

Elders, J. 2001. 'The lost churches of the Arabian Gulf: recent discoveries on the islands of Sir Bani Yas and Marawah, Abu Dhabi Emirate, United Arab Emirates', *Proceedings of the Seminar for Arabian Studies* 31, 47–57.

2003. 'The Nestorians in the Gulf: just passing through? Recent discoveries on the Island of Sir Bani Yas, Abu Dhabi Emirate, U.A.E', in D.T. Potts, H. al-Naboodah and P. Hellyer (eds) *Archaeology of the United Arab Emirates. Proceedings of the First International Conference on the Archaeology of the U.A.E.*, Trident Press, London, 230–36.

Evans, J.D. 1973. 'Sherd weights and sherd counts – a contribution to the problem of quantifying pottery studies', in D.E. Strong (ed.) *Archaeological Theory and Practise*, Seminar Press, London, 131–49.

1991. 'No more pot', *Journal of Roman Pottery Studies* 4, 69–75.

Facey, W. 2009. 'Jiddah: port of Makkah, gateway of the India Trade', in L. Blue, J. Cooper, R. Thomas and J. Whitewright (eds) *Connected Hinterlands. Proceedings of Red Sea Project IV, held at the University of Southampton September 2008*, British Archaeological Reports S2052 (International Series)/Society for Arabian Studies Monographs 8. Archaeopress, Oxford.

Fehérvári, G. 1973. *Islamic Pottery: A Comprehensive Study Based on the Barlow Collection*, Faber and Faber, London.

2000. *Ceramics of the Islamic World in the Tareq Rajab Museum*, I.B. Tauris, London/New York.

Feinman, G.M. and Garraty, C.P. 2010. 'Preindustrial markets and marketing: archaeological perspectives', *Annual Review of Anthropology* 39, 167–191.

Finster, B. and Schmidt, J. 1976. 'Sasanidische und frühislamische ruinen im Iraq. Tulul al-Ukhaidir', *Baghdader Mitteilungen* 8, 57–105.

Flecker, M. 2010. 'A ninth-century Arab shipwreck in Indonesia. The first archaeological evidence of direct trade with China', in R. Krahl, J. Guy, J.K. Wilson and J. Raby (eds) *Shipwrecked. Tang Treasures and Monsoon Winds*, Smithsonian Institute, Washington D.C, 101–19.

Fleisher, J. 2010a. 'Housing the market: Swahili merchants and regional marketing on the East African coast, seventh to sixteenth centuries AD', in C.P. Garraty and B.L. Stark (eds) *Archaeological Approaches to Market Exchange in Ancient Societies*, University Press of Colorado, Colorado, 141–59.

2010b. 'Rituals of consumption and the politics of feasting on the eastern African coast, AD 700–1500', *Journal of World Prehistory* 23, 195–217.

Fleisher, J.B. and Wynne-Jones, S. 2011. 'Ceramics and the early Swahili: deconstructing the early Tana tradition', *African Archaeological Review* 28(4), 245–78.

Fleisher, J. and LaViolette, A. 2013. 'The early Swahili trade village of Tumbe, Penba Island, Tanzania, AD 600 – 950', *Antiquity* 87, 1151–68.

Flexner, J.L., Fleisher, J.B. and LaViolette, A. 2008. 'Bead grinders and early Swahili household economy: analysis of an assemblage from Tumbe, Pemba Island, Tanzania, 7th–10th centuries AD', *Journal of African Archaeology* 6(2), 161–81.

Flinders Petrie, W.M. 1899. 'Sequences in prehistoric remains', *Journal of the Anthropological Institute of Great Britain and Ireland* 29(3/4), 295–301.

Forslund, A-L. 2003. *Pottery and East Africa*, Institutionen för arkeologi och antik historia Uppsala universitet C-uppsats, Uppsala.

Frank, A.G. 1998. *Reorient: Global Economy in the Asian Age*, University of California Press, Berkeley.

Frank, A.G. and Gills, B.K. 1993. *The World System: Five Hundred Years or Five Thousand?*, Routledge, London/New York.

Frierman, J.D., Asaro, F. and Michel, H.V. 1979. 'The provenance of Early Islamic lustre wares', *Ars Orientalis* 11, 111–26.

Frifelt, K. 2001. *Islamic Remains in Bahrain*, Jutland Archaeological Society Publications 37, Aarhus.

Gachet, J. 1998. 'Akkaz (Kuwait), a site of the Partho-Sasanian period. A preliminary report on three campaigns of excavation (1993–1996)', *Proceedings of the Society for Arabian Studies* 28, 69–79.

Gaimster, D. 2006. *The Historical Archaeology of Pottery Supply and Demand in the Lower Rhineland AD 1400–1800, Studies in Contemporary and Historical Archaeology*, British Archaeological Reports 1518 (International Series). Archaeopress, Oxford.

Garraty, C.P. 2010. 'Investigating market exchange in ancient societies: a theoretical review', in C.P. Garraty and B.L. Stark (eds) *Archaeological Approaches to Market Exchange in Ancient Societies*, University of Colorado Press, Colorado, 3–32.

Garraty, C.P. and Stark, B.L. 2010. 'Preface', in C.P. Garraty and B.L. Stark (eds) *Archaeological Approaches to Market Exchange in Ancient Societies*, University of Colorado Press, Colorado, xv–xviii.

George, A. 2015. 'Direct sea trade between Early Islamic Iraq and Tang China: from the exchange of goods to the transmission of Ideas', *Journal of the Royal Asiatic Society* 25, 579–624.

Ghirshman, R. 1960. *The Island of Kharg*, Iranian Oil Operating Company, Tehran.

Glover, I. 2002. 'West Asian Sassanian-Islamic ceramics in the Indian Ocean, South, Southeast and East Asia', *Man and Environment* 27(1), 165–77.

Goddio, F., Crick, M. Lam, P., Pierson, S. and Scott, R. 2002. *Trésor de Porcelaines L`Étrange Voyage de la Jonque Lena*, Periplus Publications, London.

Goitein, S.D. 1967–1993. *A Mediterranean Society. The Jewish communities of the Arab world as portrayed in the documents of the Cairo Geniza, Vols. I–VI,* University of California Press, Berkeley.

Grønund Evers, K. 2017. *Worlds Apart Trading Together. The organisation of Long-Distance Trade between Rome and India in Antiquity*, Roman Archaeology 32. Archaeopress, Oxford.

Gropp, G. 1991. 'Christian maritime trade of Sasanian age in the Persian Gulf', in K. Schippmann, A. Herling and J.-F. Salles (eds) *Golf-Archäologie: Mesopotamien, Iran, Kuwait, Bahrain, Vereinigt Arabische Emirate und Oman*, Internationale Archäologie 6, Leidorf, 83–8.

Grube, E.J. 1976. *Islamic Pottery of the Eighth to the Fifteenth Century in the Keir Collection*, Faber and Faber, London.

Guérin, A. and al-Na'imi, F. 2009. 'Territory and settlement patterns during the Abbasid period (ninth century AD): the village of Murwab (Qatar)', *Proceedings of the Society for Arabian Studies* 39, 181–96.

2010. 'Preliminary pottery study: Murwab horizon in progress, ninth century AD, Qatar', *Proceedings of the Society for Arabian Studies* 40, 17–34.

Gupta, S.P., Dalal, K.F., Dandekar, A., Nanji, R., Mitra, R. and Pandey, R. 2002. 'A preliminary report on the excavations at Sanjan (2002)', *Puratattva* 32, 182–98.

Gupta, S.P., Dalal, K.F., Dandekar, A., Nanji, R., Pandey, R. and Mitra, R. 2003. 'Early medieval Indian Ocean trade: excavations at Sanjan, India', *Circle of Inner Asian Art Newsletter* 17, 26–34.

Gupta, S.P., Dalal, K.F., Dandekar, A., Nanji, R., Aravazhi, P. and Bomble, S. 2004. 'On the footsteps of Zoroastrian Parsis in India: excavations at Sanjan on the west coast – 2003', *Journal of Indian Ocean Archaeology* 1, 93–106.

Gupta, S.P., Dalal, K.F., Nanji, R., Dandekar, A., Bomble, S., Mushriff-Tripathi, V., Kadgaonkar, S., Chaudhuri, G., Sharma P. and Abbas, R. 2005. 'Preliminary report of the third season of excavations at Sanjan – 2004', *Journal of Indian Ocean Archaeology* 2, 55–61.

Guy, J. 2001–02. 'Early Asian ceramic trade and the Belitung ('Tang') cargo', *Transactions of the Oriental Ceramic Society* 66, 13–27.

2004. 'The Intan shipwreck. A 10th century cargo in South East Asian waters', in S. Pearson (ed.) *Song Ceramics: Art History, Archaeology and Technology Colloquim*, Colloquies on Art and Archaeology in Asia 22, London, 171–91.

2010. 'Rare and strange goods. International trade in ninth century Asia', in R. Krahl, J. Guy, J.K. Wilson and J. Raby (eds) *Shipwrecked. Tang Treasures and Monsoon Winds*, Smithsonian Institute, Washington D.C., 19–34.

2017. 'The Phanmon Surin shipwreck, a Pahlavi inscription, and their significance for the history of early lower Central Thailand', *Journal of the Siam Society* 105, 179–96.

Hallett, J. 2000. *Trade and Innovation: The Rise of the Pottery Industry in Abbasid Basra*, Unpublished Ph.D. Thesis, University of Oxford.

2010. 'Pearl cup like the moon', in R. Krahl, J. Guy, J.K. Wilson and J. Raby (eds.) *Shipwrecked. Tang Treasures and Monsoon Winds*, Smithsonian Institute, Washington D.C., 75–84.

2012. 'Pearl cups like the moon: the Abbasid reception of Chinese ceramics and the Belitung shipwreck', in V. Porter and M. Rosser-Owen (eds.) *Metalwork and Material Culture in the Islamic World. Arts, Crafts and Texts, Essays Presented to James W. Allan*, I.B. Tauris, London/New York, 349–61.

Handley, F. and Regourd, A. 2009. 'Textiles with writing from Quseir al-Qadim – finds from the Southampton excavations 1999–2003', in L. Blue, J. Cooper, R. Thomas and J. Whitewright (eds) *Connected Hinterlands. Proceedings of Red Sea Project IV, held at the University of Southampton September 2008*, British Archaeological Reports S2052 (International Series)/Society for Arabian Studies Monographs 8. Archaeopress, Oxford, 141–54.

Hansman, J. 1985. *Julfār, an Arabian Port. Its Settlement and Far Eastern Ceramic Trade from the 14th to the 18th Centuries*, The Royal Asiatic Society of Great Britain and Ireland Prize Publication Fund 22, London.

Hardy-Guilbert, C. 1984. 'Fouilles archéologiques à Murwab, Qatar', in R. Boucharlat and J-F. Salles (eds) *Arabie Orientale, Mésopotamie at Iran Méridional de l'Âge du Fer an Début de la Période Islamique*, Editions Recherche sur les Civilisations, Mémoire 37, Paris, 169–88.

2001. 'Archaeological research at al-Shihr, the Islamic port of Hadramawt, Yemen (1996–1999)', *Proceedings of the Seminar for Arabian Studies* 31, 69–79.

2005. 'The harbour of al-Shihr, Hadramawt, Yemen: sources and archaeological data on trade', *Proceedings of the Seminar for Arabian Studies* 35, 71–85.

Hardy-Guilbert, C. and Rougeulle, A. 1997. 'Ports islamiques du Yemen; prospections archéologiques sur les côtes Yéménites (1993-1995)', Archéologie Islamique 7, 147–196.

Hawkes, J. 2014. 'Chronological sequences and the 'problem' of Early Medieval settlement in India', *Puratattva, Bulletin of the Indian Archaeological Society* 44, 208–28.

Hawkes, J. and Wynne-Jones, S. 2015. 'India in Africa: trade goods and connnections of the late first millennium', *L'Afrique orientale et l'océan Indien: réseaux d'échanges et globalisation* 6, http://journals.openedition.org/afriques/1752

Heath, I. 2007. *The Representation of Islam in British Museums*, British Archaeological Reports 1643 (International Series), Archaeopress, Oxford.

Heidemann, S. 2015. 'How to measure economic growth in the Middle East? A framework of inquiry for the Middle Islamic period', in D. Talmon-Heller and K. Cytryn-Silverman (eds) *Material Evidence and Narrative Sources. Interdisciplinary Studies of the History of the Muslim Middle East*, Brill, Leiden/Boston, 30–57.

Hill, D.V., Speakman, R.J. and Glascock, M.D. 2004. 'Chemical and mineralogical characterisation of Sasanian and Early Islamic glazed ceramics from the Deh Luran plain, southwest Iran', *Archaeometry* 46(4), 585–605.

Hinton, D.A. 1977. ''Rudely made earthenware vessels' of the twelfth to fifteenth centuries AD', in D.P.S. Peacock (ed.) *Pottery and Early Commerce. Characterization and Trade in Roman and Later Ceramics*, Academic Press, London/New York, 221–38.

Ho Chuimei, 1995. 'Turquoise jars and other West Asian ceramics in China', *Bulletin of the Asia Institute* 9, 19–39.

Hobson, R.L. 1932. *A Guide to the Islamic Pottery of the Near East*, The British Museum Press, London.

Hodges, R. 1989. *Dark Age Economics: Origins of Towns and Trade, A.D. 600–1000*, Duckworth, London.

Hodges, R. and Whitehouse, D. 1983. *Mohammed, Charlemagne and the Origins of Europe. Archaeology and the Pirenne Thesis*, Duckworth, London.

Højlund, F. and Andersen, H. 1997. *Qal'at al-Bahrain, Vol. 2. The Central Monumental Buildings*, Jutland Archaeology Society Publication, Moesgaard.

Horton, M.C. 1986. 'Asiatic colonization of the East African coast: the Manda evidence', *Journal of the Royal Asiatic Society* 2, 201–11.

1996a 'Early maritime trade and settlement along the coasts of eastern Africa', in J. Reade (ed.) *The Indian Ocean in Antiquity*, Kegan Paul, London/New York, 439–59.

1996b. *Shanga, the Archaeology of a Muslim Trading Community on the Coast of East Africa*, Memoirs of the British Institute in Eastern Africa 14, Nairobi.

Horton, M, Priestman, S., Boivin, N. and Crowther, A. forthcoming, *Early Ceramics of Zanzibar: Material Excavated from Fukuchani and Unguja Ukuu by the Sealinks Project 2011–12*, Archaeopress, Oxford.

Hourani, G.F. 1947. 'Direct sailing between the Persian Gulf and China in pre-Islamic times', *Journal of the Royal Asiatic Society of Great Britain and Northern Ireland*, 157–60.

1951. *Arab Seafaring in the Indian Ocean in Ancient and Early Medieval Times*, Expanded Edition (1995), J. Carswell (ed.), Princeton University Press, New Jersey.

Howard-Johnston, J. 2017. 'The India trade in Late Antiquity', in E.W. Sauer (ed.) *Sasanian Persia between Rome and the Steppes of Eurasia*, University of Edinburgh, Edinburgh, 284–304.

Howell, J. and Sinha, A.K. 1994. 'Preliminary report on the explorations around Sopara, Surat and Bharuch', *South Asian Studies* 10, 189–99.

Hsieh Ming-liang, 2010. 'White ware with green décor'. In R. Krahl, J. Guy, J.K. Wilson and J. Raby (eds) *Shipwrecked. Tang Treasures and Monsoon Winds*, Smithsonian Institute, Washington D.C., 160–76.

Huff, D. 1974. 'An archaeological survey in the area of Firuzabad, Fars, in 1972', in F. Bagherzadeh (ed.) *Proceedings of the 2nd Annual Symposium on Archaeological Research in Iran, 29th October – 1st November 1973, Muzeh-e Irān-e Bāstān,* Tehran, 155–79.

1987. 'Sasanians', in E. Yarshater (ed.) *Encyclopaedia Iranica*, Vol. 2, Routledge/Kegan Paul, London/New York, 302–8.

Hulthèn, B. 1974. 'On choice of element for determination of quantity of pottery', *Norwegian Archaeological Review* 7(1), 1–5.

Insoll, T. 2005. *The Land of Enki in the Islamic Era. Pearls, Palms and Religious Identity in Bahrain*, Kegan Paul, London.

Insoll, T., Almahari, S., MacLean, R., Priestman, S., Al-Maeraj, M. and Overton, N. 2016. 'Bilad al-Qadim revisited: recent archaeological research at the Al-Khamis Mosque, Ain Abu Zaydan and Abu Anbra, Bahrain', *Arabian Archaeology and Epigraphy* 27, 215–42.

Al-Jahwari, N., Kennet, D. Priestman, S. and Sauer, E. 2018. 'Fulayj: a Late Sasanian fort on the Arabian coast', *Antiquity* 92(363), 724–41.

Johns, J. 1998. 'The rise of Middle Islamic hand-made geometrically-painted ware in Bilād al-Shām (11th–13th centuries A.D.)'. In R.-P. Gayrand (ed.) *Colloque International d'Archéologie Islamique Institut Française d' Archéologie Orientale, 3 – 7 Février 1993, Le Caire (= Textes Arabes et Études Islamiques 36)*, Institute Française d'Archéologie Orientale, Cairo, 65–93.

Jones, R.F.J. 1979. 'Why pottery?' In M. Millett (ed.) *Pottery and the Archaeologist*, Institute of Archaeology Occasional Publications 4, London, 1–5.

Juhl, K. 1995. *The Relation between Vessel Form and Vessel Function. A Methodological Study*, Arkeologisk Museum i Stavanger Skrifter 14, Stavanger.

Juma, A. 1996. 'The Swahili and the Mediterranean worlds: pottery of the late Roman period from Zanzibar', *Antiquity* 70, 148–54.

2004. *Unguja Ukuu on Zanzibar. An Archaeological Study of Early Urbanism*, Studies in Global Archaeology 3, Uppsala.

Kempthorne, G.B. 1837. 'On the ruins at Tahrie', *Transactions of the Bombay Geographical Society* 1 (Reprinted Edition of 1836–1838 Issues, 1844), 294–5.

1856. 'A narrative of a visit to the ruins of Tahrie, the supposed site of the ancient city of Siraff, also an account of ancient commerce of the Gulf of Persia, etc', *Transactions of the Bombay Geographical Society* 8 (New Issue 1856–57), 125–40.

Kennedy, H. 2011. 'The feeding of the five hundred thousand: cities and agriculture in Early Islamic Mesopotamia', *Iraq* LXXIII, 177–99.

Kennet, D. 1991 'Excavations at al-Qusūr, Failaka, Kuwait', *Proceedings of the Society for Arabian Studies* 21, 97–111.

1994. 'Jazirat al-Hulayla – early Julfar', *Journal of the Royal Asiatic Society* Series 3, 4(2), 163–212.

1997. 'Kush: a Sasanian and Islamic-period archaeological tell in Ras al-Khaimah (U.A.E.)', *Arabian Archaeology and Epigraphy* 8, 284–302.

1998. 'Evidence for 4th/5th-century Sasanian occupation at Khatt, Ras al-Khaimah', in C.S. Phillips, D.T. Potts and S. Searight (eds) *Arabia and its Neighbours. Essays on Prehistorical and Historical Developments Presented in Honour of Beatrice de Cardi*, Abiel II, Brepols, Turnout, 105–16.

2001. *An Archaeological Study of the Sasanian and Islamic Periods in Northern Ras al-Khaimah (U.A.E.)*, Ph.D. Thesis, School of Oriental and African Studies, London.

2002a. 'The development of northern Ra's al-Khaimah and the 14th-century Hormuzi economic boom in the lower Gulf', *Proceedings of the Seminar for Arabian Studies* 32, 151–64.

2002b. 'Sasanian pottery in southern Iran and eastern Arabia', *Iran* 40, 153–61.

2003. 'Julfar and the urbanisation of Southeast Arabia', *Arabian Archaeology and Epigraphy* 14, 103–25.

2004. *Sasanian and Islamic Pottery from Ras al-Khaimah: Classification Chronology and Analysis of Trade in the Western Indian Ocean*, British Archaeological Reports (International Series) 1248/Society for Arabian Studies Monographs 1, Oxford.

2005. 'On the eve of Islam: archaeological evidence from Eastern Arabia', *Antiquity* 79, 107–18.

2007. 'The decline of Eastern Arabia in the Sasanian period', *Arabian Archaeology and Epigraphy* 18, 86–122.

2009. 'Review of Timothy Insoll (2005) "In the Land of Enki in the Islamic era: pearls, palms and religious identity"', *Adumatu* 19, 25–8.

Kennet, D., Petrie, C.A. and Priestman, S.M.N. 2007. 'Glazed Pottery from Charsadda', in R.A.E. Coningham and I. Ali (eds) *Charsadda. The British-Pakistani Excavations at the Bala Hisar*, British Archaeological Reports S1709/Society for South Asian Studies Monograph 5, Archaeopress, Oxford.

Kennet, D., Blair, A., Ulrich, B. and al-Duwīsh S. 2011. 'The Kadhima Project: investigating an Early Islamic settlement and landscape in Kuwait Bay', *Proceedings of the Seminar for Arabian Studies* 41, 161–72.

Kervran. M. 1977. 'Les niveaux Islamiques de secteur oriental du tépé de l'Apadana, II. – Le matériel céramiquue', *Cahiers de la Délégation Archéologique Française en Iran* 7, 75–161.

1992. 'Sohar and the maritime silk-road', in M.A.H. Al-Lawaty (ed.) *Proceedings of the International Seminar on the Silk Roads, Sultan Qaboos University 20th – 21st of November 1990*, Ministry of National Heritage and Culture, Muscat, 67–76.

1996. 'Indian ceramics in Southern Iran and Eastern Arabia: repertory, classification, chronology', in H. P. Ray and J.-F. Salles (eds) *Tradition and Archaeology, Early Maritime Contacts in the Indian Ocean*, Proceedings of the International Seminar Techno-Archaeological Perspectives of Seafaring in the Indian Ocean 4th cent. B.C. – 15th cent. A.D. February 28th – March 4th 1994, New Delhi, 37–58.

2004. 'Archaeological research at Suhār 1980–1986', *Journal of Oman Studies* 13, 263–381.

Kervran, M. and Hiebert, F. 1991. 'Sohar pré-Islamique. Note stratigraphique', in K. Schippmann, A. Herling and J.-F. Salles (eds) *Golf-Archäologie: Mesopotamien, Iran, Kuwait, Bahrain, Vereinigt Arabische Emirate und Oman*, Internationale Archäologie 6, Leidorf, 337–48.

Khan, A.H. 1990. *Al-Mansurah. A Forgotten Arab Metropolis in Pakistan*, Department of Archaeology and Museum, Karachi.

Khan, F.A. 1960. *Banbhore. A Preliminary Report on the Recent Archaeological Excavations*, 3rd Revised Edition 1969, Department of Archaeology and Museums, Government of Pakistan, Karachi.

Khakzad, S. 2012. 'Siraf archaeological report', *Sasanika Archaeology* 5, 1–8.

Khosrowzadeh, A., Aali, A. Kennet, D. and Priestman, S. 2006. 'Kahur Langar Chini: a Parthian port on the coast of the Persian Gulf', in *Archaeological Reports* 5, Iranian Center for Archaeological Research, Tehran, 55–70.

King, G.R.D. 1997. 'A Nestorian monastic settlement on the island of Sir Bani Yas, Abu Dhabi: a preliminary report', *Bulletin of the School of Oriental and African Studies* 60, 221–35.

Kirkman, J.S. 1952. *The Arab City of Gedi: The Great Mosque*, Mouton and Co., The Hague.

1954. *The Arab City of Gedi: Excavation at the Great Mosque, Architecture and Finds*, Oxford University Press, Oxford.

1963. *Gedi, The Palace*, Mouton and Co., The Hague.

Kleinmann, B. 1991. 'Cobalt pigments in the early blue Islamic glazes and the reconstruction of the way of their manufacture', in E. Peruika and G.A. Wagner (eds) *Archaeometry 1990: Proceedings of the 27th International Archaeometry Symposium*, Birkeuser, Basel, 327–36.

Koechlin, R. 1928a. *Les Céramiques Musulmanes de Suse au Musée du Louvre*, Mémoires de la Délégation en Perse 19, Ernest Leroux, Paris.

1928b. 'Chinese influences in the Musulman pottery of Susa', *Eastern Art Quarterly* I, 1st July, 2–12.

Krahl, R. 2010a. 'Green wares of Southern China', in R. Krahl, J. Guy, J.K. Wilson and J. Raby (eds) *Shipwrecked: Tang Treasures and Monsoon Winds*, Smithsonian Institute, Washington D.C., 185–99.

2010b. 'Chinese ceramics in the late Tang dynasty', in R. Krahl, J. Guy, J.K. Wilson and J. Raby (eds) *Shipwrecked. Tang Treasures and Monsoon Winds*. Smithsonian Institute, Washington D.C., 45–74.

Krahl, R., Guy, J., Wilson, J.K. and Raby, J. (eds) 2010. *Shipwrecked: Tang Treasures and Monsoon Winds*. Smithsonian Institute, Washington D.C.

Kröger, J. 1998. 'From Ctesiphon to Nishapur. Studies in Islamic glass', in V.S. Curtis, R. Hillenbrand and J.M Rogers (eds) *The Art and Archaeology of Ancient Persia. New Light on the Parthian and Sasanian Empires*, IB Tauris, London, 133–40.

Lam, P.Y.K. (ed.) 1986. *Archaeological Finds from the Jin to the Tang Periods in Guangdong*, The Chinese University of Hong Kong, Hong Kong.

Lamb, A. 1964. 'A visit to Siraf', *Journal of the Malaysian Branch of the Royal Asiatic Society* 37, 1–9.

Lamberg-Karlovsky, C.C. 1970. *Excavations at Tepe Yahya, Iran 1967 – 1969. Progress Report I*, American School of Prehistoric Research Bulletin 27, Peabody Museum, Harvard.

Lane, A. 1947. *Early Islamic Pottery: Mesopotamia, Egypt, and Persia*, Faber and Faber, London.

1956. *Islamic Pottery from the Ninth to the Fourteenth Centuries A.D. in the Collection of Sir Eldred Hitchcock*, Faber and Faber, London.

1957. *Later Islamic Pottery: Persia, Syria, Egypt, Turkey*, Faber and Faber, London.

Langfeldt, J. 1994. 'Recently discovered early Christian monuments in north-eastern Arabia', *Arabian Archaeology and Epigraphy* 5, 32–60.

Larsen, C.E. 1983. *Life and Land Use on the Bahrain Islands. The Geoarchaeology of an Ancient Society*, Prehistory Archaeology and Ecology Series, Chicago University Press, Chicago.

LaViolette, A. and Fleisher, J. 2009. 'The urban history of a rural place: Swahili archaeology on Pemba Island, Tanzania, 700–1500 AD', *International Journal of African Historical Studies* 42(3), 433–55.

Leach, B. 1940. *A Potters' Book*, Faber and Faber, London.

Lecomte, O. 1993. 'Ed-Dur, les occupations des 3e et 4e s. ap. J.-C.: contexte des trouvailles et materiel diagnostique', in U. Finkbeiner and R. Boucharlat (eds) *Materialien zur Archäologie der Seleukiden – und Partherzeit im südlichen Babylonien und im Golfgebiet: Ergebnisse der Symposien 1987 und 1989 in Blaubeuren*, Deutches Archäologisches Institute Abteilung Baghdad, Tübingen, 195–217.

Lin Shimin, 1994. 'Zhejiang export green glazed wares: Ningbo data', in Chuimei Ho (ed.) *New Light on Chinese Yue and Longquan Wares. Archaeological Ceramics Found in Eastern and Southern Asia, A.D. 800–1400*, Centre of Asian Studies Occasional Monograph 110, Hong Kong, 141–68.

Lindberg, K. 1955. *Voyage dans la Sud de l'Iran*, C.W.K. Gleerup, Lund.

Liu Yang, 2010. 'Tang Dynasty Changsha ceramics', in R. Krahl, J. Guy, J.K. Wilson and J. Raby (eds) *Shipwrecked. Tang Treasures and Monsoon Winds*. Smithsonian Institute, Washington D.C., 144–59.

Lockhart, L. 1960. 'Bushahr', in H.A.R. Gibb, J.H. Kramers, E. Lévi-Provençal, J. *et al*. (eds) *The Encyclopaedia of Islam*, Vol. I, E.J. Brill/Luzac and Co, Leiden/London, 1341–2.

Lorimer, J. G. 1908. *Gazetteer of the Persian Gulf, Oman and Central* Arabia*, Vol. 2b. Geographical and Statistical*, Calcutta.

Lowick, N.M. 1983. 'The Sināw hoard of Early Islamic silver coins', *Journal of Oman Studies* 6(2), 199–230.

1985. *Siraf XV. The Coins and Monumental Inscriptions*, The British Institute of Persian Studies, London.

MacLean, R. and Insoll, T. 2003. 'Archaeology, luxury and the exotic: the examples of Islamic Gao (Mali) and Bahrian', *World Archaeology* 34(3), 558–70.

Mak, P. (ed.) 1998. *Hunan Colours. Ancient Ceramics of Hunan Province*, University Museum and Art Gallery, University of Hong Kong, Hong Kong.

Margariti, R.E. 2007. *Aden and the Indian Ocean Trade: 150 Years in the Life of a Medieval Arabian Port*, University of North Carolina Press, Chapel Hill.

Mason, R.B. 1991. 'Petrography of Islamic ceramics', in A. Middleton and I. Freestone (eds) *Recent Developments in Ceramic Petrology*, British Museum Occasional Paper 81, London, 185–209.

1997a. 'Early medieval Iraqi lustre-painted and associated wares: typology in a multidisciplinary study', *Iraq* 54, 15–61.

1997b. 'Mediaeval Iranian lustre-painted and associated wares: typology in a multidisciplinary study', *Iran* 35, 103–35, Pls XVIII–XX.

2004. *Shine Like the Sun: Lustre-Painted and Associated Pottery from the Medieval Middle East*, Mazda Press/Royal Ontario Museum, Costa Mesa/Toronto.

Mason, R.B. and Keall, E. J. 1988. 'Provenance of local ceramic industry and the characterization of imports: petrography of pottery from medieval Yemen', *Antiquity* 62, 452–63.

1991. 'The 'Abbāsid glazed wares of Sīrāf and the Basra connection: petrographic analysis', *Iran* 29, 51–66.

Mason, R.B. and Tite, M.S. 1997. 'The beginnings of tin-opacification of pottery glazes', *Archaeometry* 39, 41–58.

Mate, M.S. 2005. *Archaeology of Medieval India*, B.R. Publishing Co., Delhi.

Matthew, A.J., Woods, A.J. and Oliver, C. 1991. 'Spots before the eyes: new comparison charts for visual percentage estimates in archaeological material', in A. Middleton and I. Freestone (eds) *Recent Developments in Ceramic Petrology*, British Museum Occasional Paper 81, London, 211–63.

Millett, M. 2000. 'The comparison of surface and stratified artefact assemblages', in M. Pasquinucci and F. Trément (eds) *Non-Destructive Techniques Applied to Landscape Archaeology. The Archaeology of Mediterranean Landscapes*, Vol. 4, Oxbow, Oxford, 216–22.

Mitsuishi, G. and Kennet, D. 2013. 'Kiln sites of the fourteenth–twentieth-century Julfar ware pottery industry in Ras al-Khaimah, UAE, *Proceedings of the Seminar for Arabian Studies* 43, 1–14.

Morgan, P. 1991. 'New thoughts on Old Hormuz: Chinese ceramics in the Hormuz region in the thirteenth and fourteenth centuries', *Iran* 29, 67–83.

1994a. 'Sgraffiato. Type and distribution', in E.J. Grube (ed.) *Cobalt and Lustre. The First Centuries of Islamic Pottery*, The Nasser D. Khalili Collection of Islamic Art IX, Oxford, 119–23.

1994b. 'Iranian stone-paste pottery of the Saljuq period. Types and techniques', in E.J. Grube (ed.) *Cobalt and Lustre. The First Centuries of Islamic Pottery*, The Nasser D. Khalili Collection of Islamic Art IX, Oxford, 155-248.

2003. 'Some remarks on a preliminary survey in eastern Fars', *Iran* 41 (Archaeological Reports), 323–38.

Morgan, P. and Leatherby, J. 1987. 'Excavated ceramics from Sīrjān', in J.W. Allen and C. Roberts (eds) *Syria and Iran. Three Studies in Medieval Ceramics*, Oxford Studies in Islamic Art 4, Oxford, 23–172.

Morier, J. 1812. *A Journey through Persia, Armenia and Asia Minor, to Constantinople, the Years 1808 and 1809 in which is Included, some Account of the Proceedings of His Majesty's Mission, Under Sir Harford Jones, Bart. K.C. to the Court of the King of Persia*, Longman, Hurst, Rees and Orme, London.

Morony, M.G. 1982. 'Continuity and change in the administrative geography of Late Sasanian and Early Islamic al-'Iraq', *Iran* 20, 1–49.

2001–02. 'The Late Sasanian economic impact on the Arabian Peninsula', *Nāme-ye Irān-e Bāstān (International Journal of Ancient Iranian Studies)* 1(2), 25–37.

Mouton, M. 1992. *La Peninsule d'Oman de la fin de l'âge du fer au début de la période Sassanide (250 av – 350 ap. JC)*. Ph.D. Thesis, Université de Paris I (Pantheon-Sorbonne), Paris.

Mughal, M.R. 1967. 'Excavations at Tulamba, West Pakistan', *Pakistan Archaeology* 4, 11–152.

Munsell Soil Color Chart, 1994. Revised Edition. Munsell Color, New Windsor.

Munt, H. 2017. 'Oman and Late Sasanian imperialism', *Arabian Archaeology and Epigraphy* 28, 264–84.

al-Muqaddasi, *The Best Divisions of Knowledge of the Regions*, B. Collins trans. (2001). Garnet Publishing, Reading.

Nanji, R. 2007. *The Study of Early Medieval Ceramics in India with Special Reference to Sanjan (Gujarat)*, Unpublished Ph.D. Thesis, Deemed University, Pune.

2011. *Mariners and Merchants: A Study of the Ceramics from Sanjan (Gujarat)*, British Archaeological Reports S2231/Sanjan Reports Volume 1. Archaeopress, Oxford.

Nanji, R. and Dandekar, A. 2005. 'Excavations at Sanjan Dakhma – 2004', *Journal of Indian Ocean Archaeology* 2, 69–72.

Neely, J. 1969. 'Preliminary report on the archaeological survey of the Deh Luran region, 1968–1969', in F. Hole (ed.) *Preliminary Reports of the Rice University Project in Iran*, Rice University, Texas, 1–8.

1970. 'An archaeological reconnaissance of the Deh Luran plain, 1968–1969', *Iran* 8, 202–3.

1974. 'Sasanian and Early Islamic water-control and irrigation systems on the Deh Luran plain, Iran', in T.E. Downing and M. Gibson (eds) *Irrigation's Impact on Society*, Anthropological Papers 25, University of Arizona Press, Arizona, 21–44.

Nixon, S. 2009. 'Excavating Essouk-Tadmakka (Mali): new archaeological investigations of Early Islamic trans-Saharan trade', *Azania* 44(2), 217–55.

Noonan, T.S. 1997. 'The impact of the Islamic trade upon urbanization in the Rus' lands: the tenth and early eleventh centuries', in M. Kazunski, A. Nercessian and C. Zuckermann (eds) *Les Centres Proto-Urbains Russes entre Scandinavie, Byzance et Orient*, Actes du Colloque International tenu au Collège de France en Octobre 1997, Paris, 379–93.

Northedge, A. 1996. 'Friedrich Sarre's 'Die Keramik von Samarra' in perspective', in K. Bartl and S. Hauser (eds) *Continuity and Change in Northern Mesopotamia from the Hellenistic to the Early Islamic Period*, Berliner Beiträge zum Vorderen Orient 17, Reimer, Berlin, 229–58.

2005. *The Historical Topography of Samarra, Samarra Studies I*, British School of Archaeology in Iraq/Fondation Max van Berchem, London.

Northedge, A. Bamber, A. and Roaf, M. 1988. *Excavations at 'Āna, Qal'a Island, Iraq*. British School of Archaeology in Iraq and Directorate of Antiquities Archaeological Report 1, Warminster.

Northedge, A. and Kennet, D. 1994. 'The Samarra horizon', in E.J. Grube (ed.) *Cobalt and Luster. The First Centuries of Islamic Pottery*, The Nasser D. Khalili Collection of Islamic Art IX, 21–35.

Okada, Y. 1992. 'Ain Sha´ia and the early Gulf churches: an architectural analogy', *Al-Rafidan* XIII, 87–93.

Orton, C.R. 1975. 'Quantitative pottery studies: some progress, problems and prospects', *Science and Archaeology* 16, 30–5.

1982. 'Computer simulation experiments to assess the performance of measures of quantities of pottery', *World Archaeology* 14(1), 1–20.

1989. 'An introduction to quantification of assemblages of pottery', *Journal of Roman Pottery Studies* 2, 94–7.

1993. 'How many pots make five?—An historical review of pottery quantification', *Archaeometry* 35(2), 169–84.

Orton, C.R. and Tyers, P.A. 1990 'Statistical analysis of ceramic assemblages', *Archeologia e Calcolatori* 1, 81–110.

1991. 'Slicing the pie – a framework for comparing ceramic assemblages', *Journal of Roman Pottery Studies* 4, 79–80.

1992. 'Counting broken objects: the statistics of ceramic assemblages', in A.M. Pollard (ed.) *New Developments in Archaeological Science: A Joint Symposium of the Royal Society and the British Academy, February 1991*, Proceedings of the British Academy 77, Oxford University Press, Oxford, 163–84.

Orton, C. Tyers, P and Vince, A. 1993. *Pottery in Archaeology*, Cambridge Manuals in Archaeology, Cambridge University Press, Cambridge.

Patitucci, S. and Uggeri, G. 1984. *Failakah Insediamenti Medievali Islamici. Ricerche e Scavi nel Kuwait*, L'Erma di Bretschneider, Rome.

Payne, R. 2011. 'Monks, dinars and date palms: hagiographical production and expansion of monastic institutions in the Early Islamic Persian Gulf', *Arabian Archaeology and Epigraphy* 22, 97–111.

Peacock, D.P.S. 1982. *Pottery in the Roman World: An Ethnoarchaeological Approach*, Longman, London.

Peacock, D. and Blue, L. 2006. *Myos Hormos – Quseir al-Qadim: Roman and Islamic Ports on the Red Sea, Survey and Excavations 1999–2003*, Oxbow, Oxford.

Pearson, N. 2006. 'Littoral society: the concept and the problem', *Journal of World History* 17(4), 353–73.

Pellat, Ch. 1960. 'al-Basra', in H.A.R. Gibb, *et al*. (eds) *The Encyclopaedia of Islam*, Vol. I, E.J. Brill/Luzac and Co., Leiden/London, 1085–6.

Peña, J.T. 2007. *Roman Pottery in the Archaeological Record*, Cambridge University Press, Cambridge.

Petersen, A. 2012. 'Coastal settlement in south-east Arabia during the Islamic period', in D.T. Potts and P. Hellyer (eds) *Fifty Years of Emirates Archaeology. Proceedings of the Second International Conference on the Archaeology of the United Arab Emirates*, Motivate Publishing, Abu Dhabi, 203–11.

Pézard, M. 1914. *Mission à Bander – Bouchir. Documents Archéologiques et Épigraphiques*, Publications de la Mission Archéologiques de Perse, Délégation en Perse, Memoires 15, Paris.

Philon, H. 1980. *Benaki Museum Athens. Early Islamic Ceramics. Ninth to Late Twelfth Centuries*, Islamic Art Publications, Athens.

Piacentini, V.F. 1984. 'Danish archaeological excavations on Failaka', in R. Boucharlat, and J.-F. Salles (eds) *Arabie Orientale, Mésopotamie at Iran Méridional de l'Âge du Fer an Début de la Période Islamique*, Editions Recherche sur les Civilisations, Mémoire 37, Paris.

1985. 'Ardashīr i Pāpakān and the wares against the Arabs: working hypothesis on the Sasanian hold of the Gulf', *Proceedings of the Society for Arabian Studies* 15, 57–77.

1992. *Merchants, Merchandise and Military Power in the Persian Gulf (Suriyanj/Shakriyaj-Siraf)*, Atti della Accademia Nazionale dei Lincei, Memoire Series IX, Volume III, Fascicule 2, Rome, 110–89.

Pirazzoli-t´ Serstevens, M. 1988. 'La céramique chinoise de Qal´at al-Suhâr', *Arts Asiatiques* 43, 87–105.

de Planhol, X. 1990. 'Būšehr', in E. Yarshater (ed.) *Encyclopaedia Iranica*, Vol. IV, Routledge/Kegan Paul, New York/London, 569–72.

Popovic, A. 1999. *The Revolt of African Slaves in Iraq in the 3rd/9th Century*. Trans. L. King, Princeton.

Posey, S. 1994. *Yemeni Pottery*, British Museum Press, London.

Potter, L.G. 2009. 'Introduction', in L.G. Potter (ed.) *The Persian Gulf in History*, Palgrave Macmillan, New York, 1–26.

Potts, D.T. 1998. 'Namord Ware in southeastern Arabia', in C.S. Phillips, D.T. Potts and S. Searight (eds) *Arabia and its Neighbours. Essays on Prehistorical and Historical Developments Presented in Honour of Beatrice de Cardi*, Abiel II, Brepols, Turnout, 207–20.

2003. 'Anshan, Liyan and Magan Circa 2000 BC', in N.F Miller and K. Abdi (eds) *Yeki Bud, Yeki Nadud. Essays on the Archaeology of Iran in Honour of William Sumner*, The American Institute of Iranian Studies Monograph 48, 156–9.

Pourshariati, P. 2008. *Decline and Fall of the Sasanian Empire. The Sasanian-Parthian Confederacy and the Arab Conquest of Iran*, I.B Tauris, London/New York.

Power, T. 2008. 'The origin and development of the Sudanese ports ('Aydhâb, Bâ/di', Sawâkin) in the Early Islamic period', *Chroniques Yéménites* 15, 92–110.

2009. 'The expansion of Muslim commerce in the Red Sea basin, *c.* AD 833–969', in L. Blue, J. Cooper, R. Thomas and J. Whitewright (eds) *Connected Hinterlands. Proceedings of Red Sea Project IV, held at the University of Southampton September 2008*, British Archaeological Reports S2052 (International Series)/Society for Arabian Studies Monographs 8, Archaeopress, Oxford, 111–18.

2010. *The Red Sea Region During the 'Long' Late Antiquity (AD 500–1000)*. D.Phil. Dissertation, Faculty of Oriental Studies, University of Oxford, Oxford.

2012. 'Trade cycles and settlement patterns in the Red Sea region (ca. AD 1050-1250)', in D.A. Agius, J.P. Cooper, A. Trakadas and C. Zazzaro (eds) *Navigated Spaces, Connected Places. Proceedings of Red Sea Project V, held at the University of Exeter 16-19 September 2010*, British Archaeological Reports S2346 (International Series)/British Foundation for the Study of Arabia Monographs 12, Archaeopress, Oxford, 137–45.

2015. 'A first ceramic chronology for the Late Islamic Arabian Gulf', *Journal of Islamic Archaeology* 2(1), 1–33.

Pradell, T., Molera, J., Smith, A.D. and Tite, M.S. 2008a. 'The invention of lustre: Iraq 9th and 10th centuries AD', *Journal of Archaeological Science* 35, 1201–15.

Pradell, T., Molera, J., Smith, A.D., Climent-Font, A. and Tite, M.S. 2008b. 'Technology of Islamic lustre', *Journal of Cultural Heritage* 9, 123–8.

Prickett, M.E. 1986. *Man, Land and Water: Settlement Distribution and the Development of Irrigation Agriculture in the Upper Rud-i Gusk Drainage, Southeastern Iran*. Unpublished Ph.D. Thesis, Harvard University, Massachusetts.

Prickett, M.E. and Williamson, A.G. 1970. *Survey on the Persian Gulf Coast*, Unpublished Report, Ashmolean Museum Archive, Oxford.

Prickett-Fernando, M. 1990a. 'Sri Lanka's foreign trade before A.D. 600: archaeological evidence'. In K.M. de Silva, S. Kiribamune and C.R. de Silva (eds) *Asian Panorama Essays in Asian History, Past and Present*, Vikas Publishing, New Delhi, 151–80.

1990b. 'Durable goods: the archaeological evidence of Sri Lanka's role in the Indian Ocean trade', in S. Bandaranayake, L. Dewaraja, R. Silva and K.D.G. Wimalarante (eds) *Sri Lanka and the Silk Road of the Sea*, The Sri Lanka National Commission for UNESCO and the Central Cultural Fund, Columbo, 61–84.

1990c. 'Mantai-Mahatittha: the great port end entrepot in the Indian Ocean', in S. Bandaranayake, L. Dewaraja, R. Silva and K.D.G. Wimalarante (eds) *Sri Lanka and the Silk Road of the Sea*, The Sri Lanka National Commission for UNESCO and the Central Cultural Fund, Columbo, 115–21.

1994. 'Middlemen and end-users: the finds of Yue and Longquan wares in Sri Lanka', in Ho Chumei (ed.) *New Light on Chinese Yue and Longquan Wares: Archaeological Ceramics found in Eastern and Southern Asia, A.D. 800–1400*, Centre of Asian Studies, Hong Kong, 299–321.

Priestman, S.M.N. 2003. 'The Williamson Collection Project: Sasanian and Islamic survey ceramics from southern Iran, current research', *Iran* 41 (Archaeological Reports), 345–8.

2004. 'Leave no stone unturned: Stein and Williamson's surveys compared', in H.E. Wang (ed.) *Sir Aurel Stein. Proceedings of the British Museum Study Day 2002*, British Museum Occasional Paper 142, London, 29–35.

2005a. *Settlement and Ceramics in the Southern Iran: An Analysis of the Sasanian and Islamic Periods in the Williamson Collection*, Unpublished M.A. Thesis. Durham University, Durham.

2005b. 'The rise of Siraf: long-term development of trade emporia within the Persian Gulf'. In *Proceedings of the International Congress of Siraf Port, November 14 – 16, 2005, Bushehr*, Bushehr Branch of Iranology Foundation and Bushehr University of Medical Sciences, Bushehr, 137–56.

2006 'Conclusion of the Williamson Collection Project', *British Institute of Persian Studies Newsletter* 29 (November), 5–7.

2007. 'The British Museum Siraf Project', *British Institute of Persian Studies Newsletter* 32 (October), 5–6.

2008a. 'Pottery from the Gorgan Wall: A Late Sasanian "military" assemblage', in H.O. Rekavandi, E.W. Sauer, T. Wilkinson, *et al*. (eds) Sasanian walls, hinterland fortresses and abandoned ancient irrigated landscapes: the 2007 season on the Great Wall of Gorgan and the wall of Tammishe', *Iran* 46, 169–76.

2008b. 'Islamic pottery in Oman', in A. al-Salimi, H. Gaube and L. Korn (eds) *Islamic Art in Oman*, Mazoon Printing, Muscat, 260–81.

2009. 'A statistical vs. a sensory approach: Sasanian ceramic studies in the light of Ceramics of the Merv Oasis', *Journal of Inner Asian Art and Archaeology* 4, 169–74.

2010a. *Inventory of Imported Pottery from Manda Housed at the National Museum of Kenya Office in Lamu*, Unpublished Report, National Museums of Kenya, Lamu.

2010b. 'Imported ceramic finds from the 2004 season of surface survey of Andaro, Madagascar', in M. Parker Pearson (ed.) *Pastoralists, Warriors and Colonists: The Archaeology of Southern Madagascar*, British Archaeological Reports S2139 (International Series), Archaeopress, Oxford.

2011a. *Islamic Ceramic Trade Connections in Eastern Arabia: Report from a Study Visit Completed between the 29th Nov – 17th Dec 2010*, Unpublished Report, Ministry of Heritage and Culture, Muscat.

2011b. 'Opaque glazed wares: definition, dating and distribution of a key Iraqi ceramic export in the Abbasid period', *Iran* 49, 89–114.

2013a. *A Quantitative Archaeological Analysis of Ceramic Exchange in the Persian Gulf and Western Indian Ocean, AD c. 400 – 1275*, Unpublished Ph.D. Thesis, Centre for Maritime Archaeology, University of Southampton, Southampton.

2013b. 'Sasanian ceramics from the Gorgān Wall and other sites on the Gorgān plain', in E.W. Sauer, *et al*. (eds) *Persia's Imperial Power in Late Antiquity. The Great Wall of Gorgān and Frontier Landscapes of Sasanian Iran*, British Institute of Persian Studies Archaeological Monographs Series II, Oxbow, Oxford, 447–534.

2016. 'The Silk Road or the sea? Sasanian and Islamic exports to Japan', *Journal of Islamic Archaeology* 3(1), 1–35.

2017. 'Review of Rougeulle Axelle (dir.) Sharma, Un entrepôt de commerce médiéval sur la côte du Hadramawt (Yémen, ca 980-1180)', *Bulletin Critique des Annales Islamologiques* 31, 145-48.

2018. 'Quantitative evidence for early long-distance exchange in Eastern Africa: the consumption volume of ceramic imports', in S. Wynne-Jones and A. LaViolette (eds) *The Swahili World*, Routledge, London/New York, 472–84.

In Press. 'Bushehr, Dashtestan and Siraf: the transformation of the Sasanian maritime trade network in the upper Persian Gulf', in St J. Simpson (ed.) *New Studies in Sasanian Archaeology: Economy, Industry and Material Culture*, British Museum Press, London.

forthcoming (ed.) *Siraf: Excavated finds in the British Museum*, British Institute of Persian Studies Archaeological Monograph Series, Oxford, Oxbow.

Priestman, S.M.N. and Kennet, D. 2002. 'The Williamson Collection Project: Sasanian and Islamic pottery from southern Iran', *Iran* 40 (Shorter Notices): 265–7.

Priestman, S.M.N., Kennet, D., Khosrowzadeh, A. and Aali, A. 2005. *Ground Testing the Williamson Collection: The British-Iranian Hormuzgan Survey*, Unpublished Report.

Priestman, S.M.N. and Kennet, D. forthcoming. *The Williamson Survey: Sasanian and Islamic Settlement and Ceramics in Southern Iran (4th to 17th Century AD)*, British Institute of Persian Studies Archaeological Monograph Series, Oxbow, Oxford.

Priestman, S.M.N. and Krahl, R. forthcoming: 'Chinese Pottery', in S.M.N. (ed.) *Siraf: Excavated finds in the British Museum*, British Institute of Persian Studies Archaeological Monograph Series, Oxford, Oxbow.

Priestman, S.M.N., Al-Jahwari, N.S., Kennet, D., Sauer, E. forthcoming. *Late Pre-Islamic Persian Imperial Expansion in Oman: New Evidence from the Fort at Fulayj*, British Foundation for the Study of Arabia Monograph, Archaeopress, Oxford.

Puschnigg, G. 2006. *Ceramics of the Merv Oasis: Recycling the City*, Left Coast Press, California.

Raby, J. and Vickers, M. 1986. 'Puritanism and passivism', in M. Vickers (ed.) *Pots and Pans. A Colloquium on Precious Metals and Ceramics in the Muslim, Chinese and Graeco-Roman Worlds, Oxford 1985*, Oxford Studies in Islamic Art III, Oxford, 217–23.

Radimilahy, C. 1998. *Mahilaka: An Archaeological Investigation of an Early Town in Northwestern Madagascar*, Studies in African Archaeology 15, Department of Archaeology and Ancient History, Uppsala.

Ravaisse, P. 1914. 'Tombe de Mahmoūyah le Sīrāfien', in M. Pezard (ed.) *Mission à Bander – Bouchir. Documents Archéologiques et Épigraphiques*, Publications de la Mission Archéologiques de Perse, Délégation en Perse, Memoires 15, Paris, 98–9.

Rawson, J., Tite, M.S. and Hughes, M.J. 1987–88. 'The export of Tang Sancai wares: some recent researches', *Transaction of the Oriental Ceramic Society* 52, 39–62.

Reddy, A. 2015. 'Sourcing Indian ceramics in Arabia: actual imports and local imitations', *Proceedings of the Seminar for Arabian Studies* 45, 253–72.

Renfrew, C. 1975 'Trade as action at a distance: questions of integration and communication', in J.A. Sabloff and C.C. Lamberg-Karlovsky (eds) *Ancient Civilization and Trade*, School of American Research, University of New Mexico Press, Albuquerque, 3–59.

Rice, P.M. 1987. *Pottery Analysis. A Sourcebook*, Chicago University Press, Chicago.

Richardson, N. and Dorr, M. 2003. *The Craft Heritage of Oman,* Vols. I–II, Motivate Publishing, Dubai.

Ricks, T. 1970. 'Persian Gulf sea-faring and East Africa: ninth–twelfth centuries', *International Journal of African Historical Studies* 3(2), 339–57.

Roaf, M. 2003. 'Excavations at Diraz East and A'ali East', in H. Crawford (ed.) *The Archaeology of Bahrain: The British contribution. Proceedings of a Seminar Held on Monday 24th July 2000 to Mark the Exhibition 'Traces of Paradise' at the Brunei Gallery, SOAS, London*. British Archaeological Reports 1189 (International Series), Archaeopress, Oxford, 25–9.

Robinson, W.S. 1951. 'A method for chronologically ordering archaeological deposits', *American Antiquity* 16(4), 293–301.

Rougeulle, A. 1996. 'Medieval trade networks in the western Indian Ocean (8th–14th cent.): some reflections from the distribution pattern of Chinese imports in the Islamic world', in H.P. Ray and J.-F. Salles (eds) *Tradition and Archaeology, Early Maritime Contacts in the Indian Ocean*. Proceedings of the International Seminar Techno-Archaeological Perspectives of Seafaring in the Indian Ocean 4th cent. B.C. – 15th cent. A.D. February 28th – March 4th 1994, New Delhi, 159–80.

2005. 'The Sharma horizon: sgraffiato wares and other glazed ceramics of the Indian Ocean trade (*c*. AD 980 – 1140)', *Proceedings of the Society for Arabian Studies* 35, 223–46.

2007. 'A medieval trade entrepôt at Khor Rori? The study of the Islamic ceramics from Al-Hamr Al-Sharqiya', in A. Avanzini (ed.) *A Port in Arabia between Rome and the Indian Ocean (3rd C. BC – 5th C. AD). Khor Rori Report 2*, Erma di Bretschneider, Rome, 645–67.

2010. 'The Qalhat Project: new research at the medieval harbour site of Qalhat, Oman (2008)', *Proceedings of the Seminar for Arabian Studies* 40, 303–19.

2015. *Sharma. Un Entrepôt de Commerce Medieval sur la Côte du Ḥaḍramawt (Yémen, ca 98–1180)*, British Foundation for the Study of Arabia Monographs 17, Archaeopress, Oxford.

Rousset, M.-O. 1994. 'Quelques précisions sur le materiel de Hira (céramique et verre)', *Archéologie Islamique* 4, 19–55.

2001. 'La céramique de Hira a décor moulé, incise ou appliqué. Techniques de fabrication et apercu de la diffusion', in E. Villeneuve and P.M. Watson (eds) *La Céramique Byzantine et Proto-Islamique en Syrie-Jordanie (IVe – VIIIe siècles apr. J.-C.). Actes du colloque tenu à Amman les 3, 4 et 5 décembre 1994*, Institut Français d'archéologie du Proche-Orient, Beyrouth, 221–30.

Rutten, K. 2007. 'The Roman fine wares of ed-Dur (Umm al-Qaiwain, U.A.E.) and their distribution in the Persian Gulf and the Indian Ocean', *Arabian Archaeology and Epigraphy* 18, 8–24.

Sajjadi, M.S. 1989. 'A class of Sasanian ceramics from southeast Iran', *Estratto da Rivist di Archeolaogia* 13, 31–40.

Salles, G.A. and Ghirshman, R. 1956. *Bîchâpour II: Les Mosaïques Sassanides*, Paul Geuthner, Paris.

Salles, J.-F. and Sedov, A.V. 2010. *Qāni': le port antique du Hadrmawt entre la Méditerranée, l'Afrique et l'Inde. Fouilles russes 1972, 1985–89, 1991, 1993–94*, Brepols, Turnhout.

Sankalia, H.D. and Dikshit, M.G. 1952. *Excavations at Brahmapuri (Kolhapur) 1945–46*, Deccan College, Pune.

Sarre, F. 1925. *Die Ausgrabungen von Samarra II: Die Keramik von Samarra*, Dietrich Reimer, Berlin.

Sasaki, T. 1990. 'Excavations at A'Aali – 1988/89', *Proceedings of the Society for Arabian Studies* 23, 111–29.

1995. '1994 excavations at Jazirat al-Hulayla, Ras al-Khaimah', *Bulletin of Archaeology the University of Kanazawa* 22, 1–74.

Sasaki, H. and Sasaki, T. 2002. 'Myanmar green ware. The kiln sites and trade to the Indian Ocean in the 15th–16th centuries', *Bulletin of Archaeology the University of Kanazawa* 26, 12–15.

Sasaki, T. and Sasaki, H. 1996. '1995 excavations at Jazirat al-Hulayla, Ras al-Khaimah', *Bulletin of Archaeology the University of Kanazawa* 23, 37–178.

1998. '1997 excavations at Jazirat al-Hulayla, Ras al-Khaimah, U.A.E.', *Bulletin of Archaeology the University of Kanazawa* 24, 99–196.

2000. '1998 excavations at Jazirat al-Hulayla', *Bulletin of Archaeology the University of Kanazawa* 25, 118–69.

2001. 'Excavations at Luluyyah fort, Sharjah, U.A.E.', *Tribulus. Journal of the Emirates Natural History Group* 11(1), 10–16.

2011. 'Excavations at A'Ali Islamic site', *Bulletin of Archaeology the University of Kanazawa* 32, 18–46.

Saunders, B. 2013. *The Trade and Distribution of Ceramics in the Western Indian Ocean 1250 – 1550 AD. An Analysis of Current Assemblages from Arabia, Iran and East Africa*, Unpublished MA Thesis, Department of Archaeology, Durham University, Durham.

Scanlon, G.T. 1965. 'Preliminary report: excavations at Fustat, 1964', *Journal of the American Research Centre in Egypt* 4, 7–30.

Schenk, H. 2001. 'The development of pottery at Tissamaharama', in Weisshaar, H.-J., Roth, H. and Wijeyapala, W. (eds) *Ancient Ruhuna: Sri Lankan-German Archaeological Project in the Southern Province 1*, Materialien zur Allgemeinen und Vergleichenden Archäologie Band 58, Mainz/Rhein, 59–195.

Sedov, A.V. 1996. 'Qana' (Yemen) and the Indian Ocean the archaeological evidence', in H.P. Ray and J.-F. Salles (eds) *Tradition and Archaeology, Early Maritime Contacts in the Indian Ocean*, Proceedings of the International Seminar Techno-Archaeological Perspectives of Seafaring in the Indian Ocean 4th cent. B.C. – 15th cent. A.D. New Delhi, February 28th – March 4th 1994, New Delhi, 11–35.

2007. 'The port of Qana' and the incense trade', in D.P.S. Peacock and D. Williams (eds) *Food for the Gods. New Light on the Ancient Incense Trade*, Oxbow, Oxford, 71–111.

Seely, R., Canby, S. and Coningham, R. 2006. 'Glazed pottery', in R.A.E. Coningham (ed.) *Anuradhapura. The British–Sri Lankan Excavations at Anuradhapura Salgaha Watta 2***.** *Volume II: The Artefacts*, Society for South Asian Studies Monograph 4/British Archaeological Reports S1508, Archaeopress, Oxford, 91–126.

Selvakumar, V., Shajan, K.P. and Tomber, R. 2009. 'Archaeological investigations at Pattanam, Kerala: new evidence for the location of ancient Muziris', in R. Tomber, L. Blue and S. Abraham (eds) *Migration, Trade and Peoples, Part 1: Indian Ocean Commerce and the Archaeology of Western India*, British Association for South Asian Studies, London, 29–41.

Severin, T. 1992. 'Oman's role in the maritime silk route: human, commercial and navigational factors towards a maritime achievement', in M.A.H. Al-Lawaty (ed.) *Proceedings of the International Seminar on the Silk Roads*, Sultan Qaboos University 20th – 21st of November 1990, Ministry of National Heritage and Culture, Muscat, 44–56.

Shatzmiller, 2011. 'Economic performance and economic growth in the Early Islamic world', *Journal of the Economic and Social History of the Orient* 54, 132–84.

Hsueh-man Shen, 2017. 'The China–Abbasid ceramics trade during the ninth and tenth centuries', in F.B. Flood and G. Necipoğlu (eds) *A Companion to Islamic Art and Architecture*, John Wiley and Sons, London, 197-217.

Simpson, St. J. 1992. *Aspects of the Archaeology of the Sasanian Period in Mesopotamia*. Unpublished D.Phil Thesis, Oxford University, Oxford.

1997. 'Partho-Sasanian ceramic industries in Mesopotamia', in I. Freestone and D. Gamester (eds) *Pottery in the Making. World Ceramic Traditions*, British Museum Press, London, 74–9.

2003. 'From Mesopotamia to Merv: reconstructing patterns of consumption in Sasanian households', in T. Potts, M. Roaf and D. Stein (eds) *Culture Through Objects. Ancient Near Eastern Studies in Honour of P.R.S. Moorey*, Griffith Institute, Oxford.

2004. 'Glass and small finds from Sasanian contexts at the ancient city-site of Merv', in *Central Asia from the Achaemenids to the Timurids. Archaeology, History, Ethnology, Culture. Materials of an International Scientific Conference Dedicated to the Centenary of Aleksandr Markovich Belenitsky, St. Petersburg, November 2–5, 2004*, Institute of the History of Material Culture of the Russian Academy of Sciences, State Hermitage, St Petersburg, 232–38.

2007. 'Bushire and beyond: some early archaeological discoveries in Iran', in E. Errington and V.S. Curtis (eds) *From Persepolis to the Punjab: Exploring Ancient Iran, Afghanistan and Pakistan*, London, British Museum Press, 153–65.

2013. 'Rams, stags and crosses from Sasanian Iraq: elements of a shared visual vocabulary from Late Antiquity', in A. Peruzzetto, F.D. Metzger and L. Dirvan (eds) *Animals, Gods and Men from East to West. Papers on Archaeology and History in Honour of Roberta Venco Ricciardi*, British Archaeological Reports 2516 (International Series), Archaeopress, Oxford, 103–17.

2018. 'Christians on Iraq's desert frontier', *Al-Rafidan* XXXIX, 1–30.

2018. 'Of cooking pots let him choose those made of stone': the manufacture, circulation and function of chlorite cooking pots and other objects in the Middle East and Central Asia during the Sasanian and medieval periods', in C.S. Phillips and St.J. Simpson (eds) *Softstone: Approaches to the Study of Chlorite and Calcite Vessels in the Middle East and Central Asia from Prehistory to the Present*, Archaeopress/British Foundation for the Study of Arabia Monograph 20, Oxford, 180–206.

Sinclair, P. 1982. 'Chibuene – an early trading site in southern Mozambique', *Paideuma* 28, 149–64.

Sindbæk, S.M. 2007. 'Networks and nodal points: the emergence of towns in early Viking Age Scandinavia', *Antiquity* 81, 119–32.

Solheim II, W.G. 1960. 'The use of sherd weight and counts in the handling of archaeological data', *Current Anthropology* 1(4), 325–9.

Soustiel, J. 1985. *La Céramique Islamique: le guide du connoisseur*, Office du Livre, Fribourg.

Soustiel, L. and Allan, J. 1995. 'The problem of Saljuq monochrome wares', in J. Allan (ed.) *Islamic Art in the Ashmolean Museum, Part 2*, Oxford Studies in Islamic Art X, Oxford, 85–116.

Smith, M.C. and Wright, H.T. 1988. 'The ceramics from Ra's Hafun in Somalia: notes on a classical maritime site', *Azania* 23, 115–41.

Smith, M.E. 2004. 'The archaeology of ancient state economies', *Annual Review of Anthrolopology* 33, 73–102.

Stargardt, J. 2014. 'Indian Ocean trade in the ninth and tenth centuries: demand, distance, and profit', *South Asian Studies* 30(1), 35-55.

Stein, Sir, M.A. 1937. *Archaeological Reconnaissances in North-Western India and South-Eastern Īrān*, MacMillan and Co., London.

Stern, B., Connan, J., Blakelock, E., Jackman, R., Coningham, R.A.E. and Heron, C. 2008. 'From Susa to Anaradhapura: reconstructing aspects of trade and exchange in bitumen-coated ceramic vessels between Iran and Sri Lanka from the third to the ninth centuries AD', *Archaeometry* 50(3), 409–28.

Steve, M.-J. (ed.) 2003. *L'île de Kharg. Une Page de l'Histoire du Golfe Persique et du Monachisme Oriental*, Civilisations du Proche-Orient Série 1, Neuchâtel.

Stiffe, A.W. 1895. 'Ancient trading centres of the Persian Gulf. I. Siraf', *Geographical Journal* 6 (July), 166–73.

Stocks, R. 1996. 'The Wadi Haqil survey', *Proceedings of the Seminar for Arabian Studies* 26, 145–63.

Stronach, D. 1967. 'British archaeology abroad 1966', *Antiquity* 41, 133–4.

1968. 'British archaeology abroad 1967', *Antiquity* 42, 97–9.

1969. 'British archaeology abroad 1968', *Antiquity* 43, 106–8.

1970. 'British archaeology abroad 1969', *Antiquity* 44, 194–5.

Swan, V.G. 2009. 'Drinking, ethnicity, troop transfers, and the Classis Britannica provinces', in V.G. Swan (ed.) *Ethnicity, Conquest and Recruitment: Two Case Studies from the Northern Military Provinces*, Journal for Roman Archaeology Supplementary Series 72, 67–95.

Talbot Rice, D. 1934. 'The Oxford excavations at Hira', *Ars Islamica* 1, 51–73.

Tamari, V. 1995. 'Abbasid blue-on-white', in J. Allan (ed.) *Islamic Art in the Ashmolean Museum, Part 2*, Oxford Studies in Islamic Art X, Oxford, 117–45.

Tamin, P. 2001. 'A market economy in the Early Roman Empire', *The Journal of Roman Studies* 91, 169–81.

Tampoe, M. 1989. *Maritime Trade Between China and the West. An Archaeological Study of Ceramics from Siraf (Persian Gulf), 8th to 15th Centuries AD*, British Archaeological Reports (International Series) 555, Oxford.

Tite, M.S., Freestone, I., Mason, R.B., Molera, J., Vendrell-Saz, M. and Wood, N. 1998. 'Lead glazes in antiquity – methods of production and reasons for use', *Archaeometry* 40, 241–60.

Tofighian, H., Nadooshan, F.K. and Mousavi, S.M. 2011. 'Sasanians in the Persian Gulf according to archaeological data', *Sasanika Archaeology* 2, 1–5.

Tomber, R. 2006. 'The pottery', in V.A. Maxfield and D.P.S. Peacock (eds) *Survey and Excavations. Mons Claudianus 1987–1993. Vol III. Ceramic Vessels and Related Objects from Mons Claudianus*, Institut Français d'Archéologie Orientale 54, Cairo, 1–236.

2007. 'Rome and Mesopotamia – importers into India in the first millennium AD', *Antiquity* 81, 972–88.

2008. *Indo-Roman Trade. From Pots to Pepper*, Duckworth Debates in Archaeology, London.

Tomber, R., Carter, R. and Priestman, S. 2010. 'Report on Torpedo jars from the Williamson Collection', *British Institute of Persian Studies Newsletter* 38, 6–7.

Tomber, R., Cartwright, C. and Gupta, S. 2011. 'Rice temper: technological solutions and source identification in the Indian Ocean', *Journal of Archaeological Science* 38, 360–6.

Trinkaus, K.M. 1984. 'Boundary maintenance strategies and archaeological indicators', in S.P. De Atley and F.J. Findlow (eds) *Exploring the Limits. Frontiers and Boundaries in Prehistory*, British Archaeological Reports 223 (International Series), Oxford, 35–49.

Tripathi, A. 2004. 'Onshore and offshore exploration in Elephanta Island: evidence of Indo-Mediterranean trade', *Journal of Indian Ocean Archaeology* 1, 116–23.

Turner, P.J. 1989. *Roman Coins from India*, Institute of Archaeology Occasional Publication 12/Royal Numismatic Society Special Publication 22, London.

Ulrich, B. 2011. 'Oman and Bahrain in late antiquity; the Sasanians' Arabian periphery', *Proceedings of the Seminar for Arabian Studies* 41, 377–86.

Vanden Berghe, L. 1961. 'Récentes Découvertes de Monuments Sassanides dans le Fārs', *Iranica Antiqua* 1, 163–98, Planches XVI–XXXVIII.

Velde, C. 2012. 'The geographical history of Julfar', in D.T. Potts and P. Hellyer (eds) *Fifty Years of Emirates Archaeology. Proceedings of the Second International Conference on the Archaeology of the United Arab Emirates*, Motivate Publishing, Abu Dhabi, 213–21.

Vickers, M. 1992. 'Greek vases, down Mexico way', *Archaeological Review from Cambridge* 11(2), 339–55.

Walker, J.T. 2009. 'Review of G. Puschnigg, 'Ceramics of the Merv Oasis: Recycling the City'', *American Journal of Archaeology* 113(1), 148–9.

Wallerstein, I. 1974. *The Modern World-System, Vol. I: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*, Academic Press, New York/London.

1991. 'World systems versus world-systems: a critique', *Critique of Anthropology* 11(2), 189–94.

Watson, O. 1985. *Persian Lustre Ware*, Faber and Faber, London.

2004. *Ceramics from the Islamic Lands*, Thames and Hudson/The al-Sabah Collection, Dar al-Athar al-Islamiyyah, Kuwait National Museum, London.

2012. 'Glazed-decorated unglazed wares', in V. Porter and M. Rosser-Owen (eds) *Metalwork and Material Culture in the Islamic World. Arts, Crafts and Texts, Essays Presented to James W. Allan*, I.B. Tauris, London/New York, 337–47.

Wen Wen, 2018: *Chinese Ceramics in the Islamic World from the 8th to 10th Centuries CE*, Unpublished DPhil Thesis, School of Archaeology, University of Oxford, Oxford.

Wenke, R.J. 1975–76. 'Imperial investment and agricultural development in Parthian and Sasanian Khuzestan: 150 B.C. – A.D. 640', Mesopotamia 10/11, 31–221.

Wenqing, W. 2017. *Manufacturing Place and Distribution System Study of Late Sgraffiato in Southern Iran during the 12th–13th Centuries AD*, Unpublished MA Thesis, Department of Archaeology, Durham University, Durham.

Whitcomb, D.S. 1975. 'The archaeology of Oman: a preliminary discussion of the Islamic periods', *Journal of Oman Studies* 1, 123–57.

1978. 'The archaeology of al-Hasa oasis in the Islamic period', *Atlal* 2, 95–113.

1979. 'The city of Istakhr and the Murvdasht plain', in *Akten des VII. International Kongresses für Iranische Kunst und Archäologie, 7 –10 September 1976, München*, Archäologische Mitteilungen aus Iran, Ergänzungsband 6, Berlin, 363–70.

1985a. *Before the Roses and the Nightingales. Excavations at Qasr-i Abu Nasr, Old Shiraz*, Metropolitan Museum of Art, New York.

1985b. 'Islamic archaeology at Susa', *Paléorient* 11(2), 85–90.

1987. 'Bushire and the Angali canal', *Mesopotamia* 22, 311–36.

1991. 'Pseudo-prehistoric ceramics from Southern Iran', in K. Schippmann, A. Herling and J.-F. Salles (eds) *Golf-Archäologie: Mesopotamien, Iran, Kuwait, Bahrain, Vereinigt Arabische Emirate und Oman*, Internationale Archäologie 6, Leidorf, 95–112.

2004. 'Iranian cities of the Sasanian and Early Islamic periods', *Oriental Institute Annual Report 2003–2004*, 91–4.

2009a. 'The Gulf in the Early Islamic period: the contribution of archaeology to regional history', in L.G. Potter (ed.) *The Persian Gulf in History*, Palgrave Macmillan, New York, 71–88.

2009b. 'The high valleys', in D. Whitehouse (ed.) *Siraf. History, Topography and Environment*, The British Institute of Persian Studies Archaeological Monographs Series I, Oxbow, Oxford, 77–97.

Whitcomb, D.S. and Johnson, J.H. 1979. *Quseir al-Qadim 1978 Preliminary Report*, Nafeh Press, Cairo.

1982. *Quseir al-Qadim 1980 Preliminary Report*, American Research Center in Egypt Reports 7, Undena Publications, Malibu.

Whitehouse, D. 1968. 'Excavations at Siraf. First interim report', *Iran* 6, 1–22.

1969. 'Excavations at Siraf. Second interim report', *Iran* 7, 39–62.

1970. 'Excavations at Siraf. Third interim report', *Iran* 8, 1–18.

1971a. 'Siraf. A Sasanian Port', *Antiquity* 45, 262–7.

1971b. 'Excavations at Siraf. Fourth interim report', *Iran* 9, 1–17.

1972. 'Excavations at Siraf. Fifth interim report', *Iran* 10, 63–87.

1973. 'Chinese stoneware from Siraf: the earliest finds', in N. Hammond (ed.) *South Asian Archaeology. Papers from the First International Conference of South Asian Archaeologists in Western Europe*, Duckworth, Cambridge, 241–55.

1974. 'Excavations at Siraf. Sixth interim report', *Iran* 12, 1–30.

1975. 'The decline of Siraf', in F. Bagherzadeh (ed.) *Proceedings of the 3rd Annual Symposium on Archaeological Research in Iran, 2nd – 7th November, 1974, Muzeh-e Iran-e Bastan*, Tehran, 263–70.

1976. 'Kish', *Iran* 14 (Shorter Notices), 146–7, Pl. I: a.

1979a. 'Islamic glazed pottery in Iraq and the Persian Gulf: the ninth and tenth centuries', *Annali, Instituto Orientale di Napoli* 39, 45–61.

1979b. 'Maritime trade in the Arabian Sea: the 9th and 10th centuries A.D.', in M. Taddei (ed.) *South Asian Archaeology 1977. Papers from the Fourth International Conference of South Asian Archaeologists in Western Europe*, Instituto Universitario Orientale, Naples, 865–85.

1983. 'Maritime trade in the Gulf: the 11th and 12th centuries', *World Archaeology* 14(3), 328–34.

1987. *Siraf IX. Sasanian and Islamic Glazed Pottery*, Unpublished Draft Manuscript, British Museum Siraf Archive, London.

1988. 'Abbasid maritime trade: the age of expansion', in H.I.H. Prince M.M. Takahito (ed.) *Cultural and Economic Relations between East and West. Sea Routes. 31*st *Bulletin of the Middle Eastern Culture Centre in Japan*, Harrassowitz, Wiesbaden, 62–70.

1992. 'Epilogue: Roman trade in perspective', in V. Begley and R.D. de Puma (eds) *Rome and India. The Ancient Sea Trade*, University of Wisconsin, Wisconsin, 216–18.

1996. 'Sasanian maritime activity', in J. Reade (ed.) *The Indian Ocean in Antiquity*, Kegan Paul International, London/New York, 339–49.

1998. *Excavations at Ed-Dur (Umm al-Qaiwain, United Arab Emirates) 1: The Glass Vessels*, Peeters, Leuven.

2009. *Siraf. History, Topography and Environment*, The British Institute of Persian Studies Archaeological Monographs Series I, Oxbow, Oxford.

forthcoming. 'The stratigraphy and chronology of sites excavated between 1966 and 1973', in S.M.N. Priestman (ed.) *Siraf: Excavated Finds in the British Museum*, British Institute of Persian Studies Archaeological Monograph Series, Oxford, Oxbow.

Whitehouse, D. and Williamson, A.G. 1973. 'Sasanian maritime trade', *Iran* 11, 29–49.

Whitelaw, G. 1994. 'KwaGandaganda: settlement patterns in the Natal Early Iron Age', *Natal Museum Journal of Humanities* 6, 1–64.

Whittow, M. 2013. 'How much trade was local, regional and inter-regional? A comparative perspective on the Late Antique Economy', in L. Lavan (ed.) *Local Economics? Production and Exchange of Inland Regions in Late Antiquity*, Late Antique Archaeology 10, Brill, Leiden, 133–65.

Wild, J.P. and Wild, F.C. 2007. 'Textiles', in S.E. Sidebotham and W.Z. Wendrich, 2007 (eds) *Berenike 1999/2000: Report on the Excavations at Berenike, Including Excavations in Wadi Kalalat and Siket, and the Survey of the Mons Smaragdus Region*, University of California, Los Angeles, 225–7.

Wilding, R. 1977. *The Ceramics of the Lamu Archipelago*, Unpublished Ph.D. Thesis, University of Nairobi, Nairobi.

Wilkinson, T.J. 1974. 'Agricultural decline in the Siraf region', *Paléorient* 2(1), 123–32.

1975. 'Sohar Ancient Field Project, interim report No. 1', *Journal of Oman Studies* 1, 159–66.

1976. 'Sohar Ancient Field Project, interim report No. 2', *Journal of Oman Studies* 2, 75–80.

1977. 'Sohar Ancient Field Project, interim report No. 3', *Journal of Oman Studies* 3, 13–16.

1980. 'Water mills of the Batinah coast of Oman', *Proceedings of the Seminar for Arabian Studies* 10, 127–32.

1999. 'Demographic trends from archaeological survey: case studies from the Levant and Near East', in J. Bintiff and K. Sbonias (eds) *Reconstructing Past Population Trends in Mediterranean Europe.* The Archaeology of Mediterranean Landscapes, Vol. 1, Oxbow, Oxford, 45–64.

2003. *Archaeological Landscapes of the Near East*, Arizona University Press, Arizona.

2009. 'The hinterland', in D. Whitehouse (ed.) *Siraf. History, Topography and Environment*, The British Institute of Persian Studies Archaeological Monographs Series I, Oxbow, Oxford, 54–76.

Williamson, A.G. 1970a. *Archaeological Survey of Islamic Sites in Southern Iran 1969–1970*, Unpublished Report, Ashmolean Museum Archive, Oxford.

1970b. 'Islamic trade routes in Southern Iran', *Iran* 8, 206–7.

1971a. *Archaeological Surface Survey in the Bushehr Peninsular 5–14 June 1971*, Unpublished Report, Ashmolean Museum Archive, Oxford.

1971b. *Archaeological Survey in the Area of Rishahr (Bushehr) June 1971*, Unpublished Report, Ashmolean Museum Archive, Oxford.

1971c. 'Sirjan', *Iran* 9: 177.

1971d. *Report on Research Carried Out in Iran in June 1970 to October 1971 Supported by the Gerald Avery Wainwright Fund of Oxford University*, Unpublished Report, Ashmolean Museum Archive, Oxford.

1971e. 'Excavations at Tepe Dasht-i-Deh', *Iran* 9, 182–3.

1971–72. 'Chapter 5. Rishahr and the development of trade from the 3rd to the 7th centuries A.D.', in *The Maritime Cities of the Persian Gulf and their Commercial Role from the 5th Century to 1507*, Incomplete DPhil Thesis, Ashmolean Museum Archive, Oxford.

1972. 'Persian Gulf commerce in the Sasanian period and the first two centuries of Islam', *Bastan Chenasi va Honar-e Iran* 9/10, 97–109 (foreign section), 142–51 (Iranian section).

1973a. 'Hormuz and the trade of the Gulf in the 14th and 15th centuries A.D.', *Proceedings of the Seminar for Arabian Studies* 6, 52–68.

1973b. *Sohar and Omani Seafaring in the Indian Ocean*, Petroleum Development (Oman) Ltd., Muscat.

1987. 'Regional distribution of medieval Persian pottery in the light of recent investigations', in J.W. Allan and C. Roberts (eds) *Syria and Iran. Three Studies in Medieval Ceramics*, Oxford Studies in Islamic Art 4, Oxford, 11–22.

Wilson, Sir A. 1942. *South West Persia: A Political Officer's Diary 1907–1914*. London.

Wilson, A. 2009. 'Approaches to quantifying Roman trade', in A. Bowman and A. Wilson (eds) *Quantifying the Roman Economy. Methods and Problems*, Oxford University Press, Oxford, 213–49.

Wilson, J.K. and Flecker, M. 2010. 'Dating the Belitung shipwreck', in R. Krahl, J. Guy, J.K. Wilson and J. Raby (eds) *Shipwrecked. Tang Treasures and Monsoon Winds*, Smithsonian Institute, Washington D.C., 35–44.

Wilson, T.H. 1982. 'Spatial analysis and settlement patterns on the East Africa coast', *Paideuma* 28, 201–19.

Wink, A. 2002. *Al-Hind: The Making of the Indo-Islamic World*. *Early medieval India and the Expansion of Islam 7th–11th centuries*, Vol. 1, Brill, Leiden.

Wisniewski, B. 2008. 'Reflections about Dai La period of the citadel through the study of some ceramics of the end of the first millenary found on the site', in *Nhận diện giá trị khu di tích*

Hoàng thành Thăng Long sau 5 năm nghiên cứu so sánh (2004–2008) [*Identification of the values of Thang Long imperial citadel site after 5 years comparative research (2004–2008)*], Kỷ yếu Hội Thảo Khoa Học Quốc Tế. Hà Nội: Viện Khoa Học Xã Hội Việt Nam, 167–74.

2012. 'La fouille du site de Tuần Châu', *Bulletin de l'École française d'Extrême-Orient* 95–6, 499–505.

Wood, N. 1978. *Oriental Glazes. Their Chemistry, Origin and Re-Creation*, Pitman, London.

Wood, N., Tite, M., Doherty, C. and Gilmour, B. 2007. 'A technological examination of 9th–10th century AD Abbasid blue-and-white ware from Iraq, and its comparison with 8th century AD Chinese blue-and-white sancai ware', *Archaeometry* 49(4), 665–84.

Wood, N. and Tite, M. 2009. 'Blue and white – the early years. Tang China and Abbasid Iraq compared'. S. Pierson (ed.) *Colloquies on the Art and Archaeology in Asia* 24, London, 21–45.

Wood, N., Doherty, C. and Rosser-Owen, M. 2009. 'A technological study of Iraqi copies of Chinese Changsha and Chinese *Sancai* wares found Samarra – together with some Chinese originals', *Gu Taoci Kexue Jishu* 8, Beijing, 154–80.

Wright, H.T. 1984. 'Early seafarers of the Comoro Islands: the Dembeni Phase of the IXth–Xth centuries AD', *Azania* 19, 13–59.

Wulff, H.E. 1966. *The Traditional Crafts of Persia. Their Development, Technology, and Influence on Eastern and Western Civilisation*, Institute of Technology, Massachusetts.

Wynne-Jones, S. and Mapunda, B.B.B. 2008. 'This is what pots look like here': pots, practice and tradition in the Mafia archipelago', *Azania* XLIII, 1–17.

Wynne-Jones, S. and Fleisher, J. 2010. 'Archaeological investigations at Songo Mnara, Tanzania, 2009', *Nyame Akuma* 73, 2–9.

Bai Zhang, 2008a. *Complete Collection of Ceramic Art Unearthed in China, Vol. 12 – Henan*, Science Press, Beijing.

2008b. *Complete Collection of Ceramic Art Unearthed in China, Vol. 11 – Fujian*, Science Press, Beijing.

Ran Zhang, 2016: *An Exploratory Quantitative Archaeological Analysis and the Classification of Chinese Ceramics Trade in the Western Indian Ocean, AD c. 800- 1500*. Unpublished PhD Thesis, Department of Archaeology, Durham University, Durham.

Bing Zhao, 2013. 'Luxury and power: the fascination with Chinese ceramics in medieval Swahili material culture', *Orientations* 44(3), 71–78.

Zarins, J. 1989. 'Arab southern Red Sea ports and the early Chinese porcelain trade as reflected principally from Aththar, 217–108, Saudi Arabia', *Annali* 49(3), 231–69.